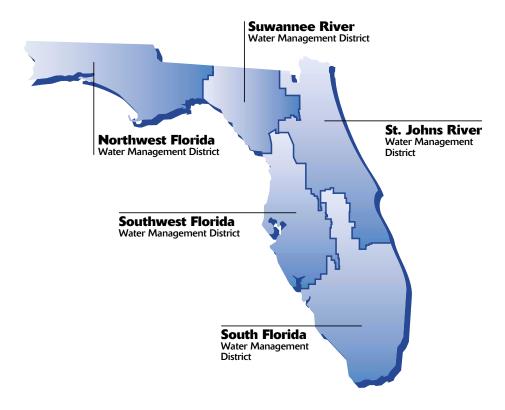


#### Florida's water management districts



## **Credits**

This publication is provided to you by Florida's five regional water management districts. Principal staff involved in preparing this guide include Bruce Adams, Daniel Boyar, Linda Burnette, Amy Ferriter, Martha Friedrich, Lisa Grant, Beth Hickenlooper, Lou Kavouras, Mathew O'Malley, Sandra McGee, Marc Minno, Brian Nelson, Katherine Pordeli, Eileen Tramontana, Daniel Thayer, John Thompson and Garrett Wallace.

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# WATERWISE

Introduction 2

# Florida Landscapes

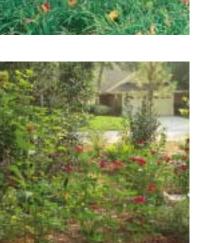
Landscaping to Promote Water Conservation Using the Principles of Xeriscape™

from Florida's water management districts



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#### Introduction

Florida is surrounded on three sides by water. The state's greatest sources of surface water are wetlands, thousands of lakes, and many rivers and streams. With all this water around, many people may not realize there is a need to **conserve** water. Even though Florida is surrounded by water and has many interior water bodies, not all of that water is available for drinking or other uses by humans. In addition, Florida's weather is fickle — long periods of wet weather may be followed by long periods of dry weather. The state's leaders recognize the need to conserve water as a means to ensure the continued availability of this vital resource for everyone from year to year.

Preserving and protecting Florida's water resources is a main focus of the state's five water management districts. This guide is brought to you by the water management districts in an effort to help you work with nature in the state's unique environment to establish a landscape that conserves water resources and protects water quality. Through use of the Xeriscape landscaping principles, everyone can help conserve resources. Florida's water management districts have permission to use the concepts of Xeriscape, which is a registered trademark of Denver Water, 1600 West 12th Ave., Denver, Colo. 80254, (303) 628-6325.

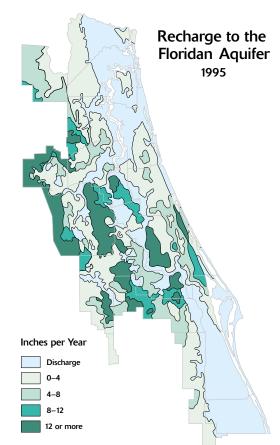
Achieving a natural, healthy balance in your landscape starts by putting the right plant in the right place. Matching plants to conditions that exist in your area helps them thrive, once established, with little or no irrigation or chemicals. The seven principles of Xeriscape are explained in this guide. Scientific or other special terms appear in bold. These terms are listed in the glossary at the end of this guide and are defined in the context in which they are used in this guide. A plant list is included to help you choose the best plants for your landscape. Resources and references for more information are listed at the back of the guide.

Through this guide, we hope you'll find that when you work with nature, nature will work for you. And you'll be doing your part to ensure that our natural resources can be enjoyed today and by future generations.

## What Is Xeriscape Landscaping?

Xeriscape is a common sense way to landscape that conserves water and protects the environment. Xeriscape landscaping is based on seven basic principles that can be successfully applied anywhere.

The main objective of Xeriscape is to establish and maintain a healthy landscape by matching the right plants with existing site conditions so that the use of additional resources, such as water, fertilizer, pesticides and labor, is minimized. In addition to helping conserve water resources, Xeriscape landscaping practices reduce the amount of pollutants reaching water bodies because fewer yard chemicals are used. Fertilizers and pesticides can contaminate water bodies when they are washed out of the yard with the rain, in **stormwater runoff**.



The term Xeriscape and the concept of Xeriscape were first developed in the southwestern United States during droughts in the early 1980s. Residents of the West learned that one way to save water was to develop landscapes with plants that occur naturally in the existing conditions, rather than perpetually trying to change the conditions. In Florida, Xeriscape landscaping can be as lush as Florida itself — Xeriscape is rocks and cactus only where they naturally occur.

The best time to establish a drought-tolerant Xeriscape landscape for your home or commercial property is long before a drought. Once established, the right plant in the right place will be highly self-sufficient, needing little help to survive nature's extremes. Healthy, well-placed plants with deep, established root systems will need less help to survive a drought.

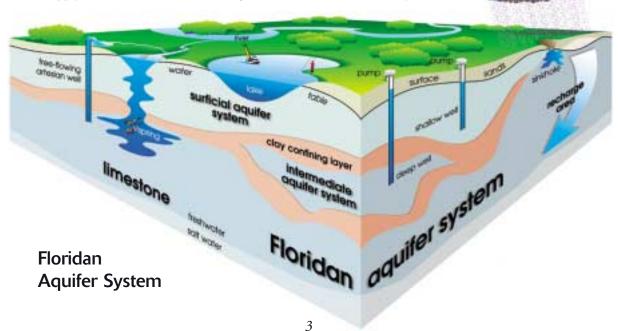
Conserving our water supply and reducing water pollution have become important issues in our growing communities. Despite Florida's humid climate and abundant surface water bodies, water shortages do occur here. Demand can overtake supply, and regional droughts force Floridians to practice water conservation as a way of life.

In many Florida households, as much as half of household water is used outdoors, mostly for lawn and garden irrigation. Ninety percent of all public water supply in Florida comes from underground sources, primarily the Floridan aquifer. The aquifer's resources are limited. Each day we pump billions of gallons from the Floridan **aquifer**, but the rate at which the groundwater system refills, or recharges, from rain is far less. On average, Florida receives 54 inches of rainfall yearly.

Taking too much water out of the aquifers, known as overpumping, threatens **potable** water supplies, but it also increases the occurrence of **sinkhole** formations. Because the aquifer system is connected to surface water bodies in some areas, overpumping the aquifers causes lowered water levels — or **drawdowns** — of our vital **wetlands** and lakes.

Likewise, fresh groundwater sources can be threatened by **saltwater intrusion**. Saltwater intrusion occurs when too much freshwater is pumped from an aquifer, allowing salt water to move into voids in the aquifer from the ocean or the Gulf of Mexico; ancient **brackish** seawater below the freshwater level of the aquifer can also move into these voids.

Florida's water management districts have declared water resource caution areas throughout the state in areas where overpumping or saltwater intrusion has occurred. A water resource caution area is an area where the current source of public water supply is not adequate or may not be adequate to meet public water supply



demands in 20 years.

## **The Seven Principles of Xeriscape**



The seven simple principles of Xeriscape landscaping have been used by landscape professionals for years. Here is an overview of the seven principles; details of each principle are given in the following pages.



PLAN AND DESIGN — Make a sketch of the landscape site. Base the plan on site conditions, existing vegetation and topography — the natural features of the land. Assess the area's growing conditions and think through intended uses of the landscape.
 Landscapes are dynamic, so include elements of growth, time and change in your plan.



#### 2. OBTAIN A SOIL ANALYSIS —

Determine the soil's composition, from sandy to clay, and test for the pH of the soil — its level of acidity or alkalinity. This information will help you decide which plants are best suited to the conditions of your yard.

#### 3. CHOOSE PROPER PLANTS —

When choosing new plants, match each spot in your landscape with plants that thrive in the specific conditions of that spot. Look for plants known to be resistant to disease and pests. Consider each plant's mature height and width, its need for sun, shade, soil and water, and its tolerance to cold or salt. Preserve as many existing trees and shrubs as possible, if they're healthy and if the root systems are not significantly impacted by construction. Native vegetation appropriately placed will remain healthy with minimal supplemental irrigation and care once established.

- 4. USE TURF WISELY Grass is often a yard's largest water user, but it can still play a role in a water-conserving landscape. Use turf where it is most functional in the landscape plan, such as where children or pets will play, or for erosion control. In other areas, consider more water-thrifty alternatives such as groundcovers or mulched walkways.
- 5. IRRIGATE EFFICIENTLY Group plants based on their water needs. Put moisture-loving plants in moist areas and plants that prefer well-drained sites in drier areas. Group together plants that may need irrigation so that water is only used in limited areas. Only irrigate when plants need water or when rain has been inadequate, and use the right irrigation system and proper sprinkler head for each area.
- 6. USE MULCHES Mulches help hold moisture in the soil, moderate temperature, slowly release nutrients, reduce weed growth and slow erosion. Spread mulch around shrubs and trees and on flower beds, 2 to 4 inches thick, keeping mulch from coming into direct contact with plant stems.
- 7. PERFORM PROPER MAINTENANCE Keep plants healthy. Too much water and fertilizer promote weak growth, as well as increase pruning and mowing requirements. Remove weeds by hand before they get established and crowd out the plants you want. Watch for pests and make sure they're truly a problem before waging war, then do it organically whenever possible.

## 1. Plan and Design

The first step of design is to identify growing conditions and any vegetation or structures already in place. Next, decide how the property will be used. Be sure to check city and county landscaping codes for restrictions in your community. Also, some neighborhood associations have landscape specifications in the deed restrictions.

Inventory the site, identifying

- Growing conditions
  - Hardiness zone (for cold and heat)
  - Direction/aspect (north, south, east, west)
  - Areas that are sunny or shady throughout the day and the seasons
  - Areas that drain well or that collect water
- Existing vegetation (Is it healthy? Is it native? Is it appropriate for site conditions?)
- Hardscape (walkway, driveway, pool, fence)
- Views and adjacent features (Frame a pleasing view, or screen an undesirable view. Watch out for underground utilities and overhead power lines.)

#### KNOW HOW IT GROWS

Understanding a site's growing conditions is the most important factor in choosing plants. Regional growing zones in Florida range from 8a to 11.

Within a regional growing zone, climatic variations can be influenced by specific site conditions such as shade or direct sun. These specific site conditions are referred to as **microclimates**. There may be dry areas and moist or wet areas on the same property. All of these conditions must be assessed to match them with the plants that will do well in each.

Sunny and shady areas will vary, depending on the time of day and the season. For example, a plant may get more sun in winter than in summer due to the changed angle of the sun or because a **deciduous** tree has lost its leaves and no longer provides shade. The south side of a building has more sun than the north side, so heat-sensitive plants can be placed on the north side of a building where it's cooler. More cold-sensitive plants can be placed on the south side of a building for protection from winter's north wind.

#### HOW WILL YOU USE IT?

The next step in the planning process is to determine what functions you want the landscape to serve.

Answer these questions:

- How will you use your yard?
- What are the best places for entries, walkways, sitting areas and play areas?
- Where do you want to frame existing views or to establish privacy?
- Where do you want to create views or accent areas?

Start with the **plat** (map, or plan) of your property, or draw your site to scale (e.g., 1 half inch = 1 foot). Put existing plants and site conditions on the master drawing. Make multiple copies so you can sketch in different ideas, or lay tracing paper over your master drawing to try out different ideas.

On your drawing, arrange plants to create and define spaces, direct or screen views, and influence direction of movement. Plants can modify climate — a shade tree cools and protects, creating microclimates that determine the kinds of plants that can live in that shade. Take out the tree and you change the microclimate — different plants can now live in that space.

Your plant choices can also attract and support wildlife and beneficial insects. Plants can be specifically selected as nectar and larval food plants for butterflies and caterpillars or as food and nesting habitat for birds, or to add vibrant beauty to the landscape.



Take your time and learn as much as possible about the area to be landscaped. A year of observation is recommended to study, reflect on and tune in to seasonal changes and other variables that exist in the area.

#### THE EYE OF THE BEHOLDER

When combining plants, the most important considerations are mature size and how the plants look and exist together. Experiment with how different combinations look together, considering color, shape, texture and mature size.

Plants combined in groups of odd numbers often look better than plants combined in groups of even numbers. Use repetitive elements — the same color in different shapes, for example. Other aesthetic uses for plants are to complement, soften, frame or emphasize elements within the landscape or architectural features of a building.

Plan for different seasons of the year to ensure year-round interest through blooms, color, foliage and shapes in the landscape. And, because landscapes are forever changing, plan accordingly. While waiting for that young live oak to grow into a dominant landscape element, plant sunny areas with annuals or perennials that will eventually be shaded out by the growing oak.

# 2. Obtain a Soil Analysis

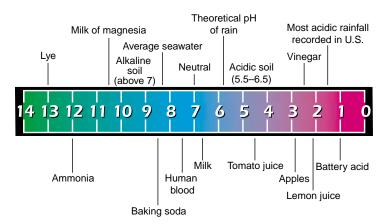
Florida soils have varying textures, colors, water-holding capabilities and nutrient levels for plants. It is important to examine and analyze your soil at the beginning of a landscaping project. Most Florida soils typically do a good job of supporting plant life — just look around at the variety of plants growing naturally in Florida. When choosing plants, be aware that some may require a lot of feeding and then may still have deficiency problems. It's best to choose plants suited to existing soil conditions.

A soil's pH level — acid, neutral or alkaline — is

one factor to analyze before selecting plants. Most plants grow best in soil that has a pH that is somewhat acidic (pH 5.5–6.5). Some plants, such as beach sunflower, will tolerate alkaline soils (high pH, above 7), while other plants simply can't. Coastal areas frequently have alkaline conditions—the presence of salt and shell fragments can be an indication of alkalinity.

Some plants can tolerate acidic soils (lower than pH 5.5), and there are some plants that require acidic soil to thrive, for example, camellia, blueberry, gardenia and azalea.

## pH Scale



If your landscape is in a low-lying area such as pine flatwoods, different kinds of soils may have been brought in as fill material to raise the building's foundation. Thus, soil samples will need to be taken from several areas around the yard.

Soil can be improved in planting beds with amendments such as peat or compost, added several weeks before planting and then again periodically. But because amendments break down, it is difficult to significantly change soil over the long term. Adding organic matter does improve nutrient levels and basic soil conditions, but will not drastically change extreme conditions permanently. For more information about mulches and the rates at which they break down, contact your local Cooperative Extension Service office.

#### WHAT'S IN THE SOIL?

The County Cooperative Extension Service can test pH in soil or irrigation water for a small fee. The address and the telephone number of your local extension office are listed in the telephone book under county offices.

A wealth of information about soils for each county in Florida can be found in your county's soil survey, published by the U.S. Department of Agriculture's Soil Conservation Service (listed in the telephone book under federal government offices). Soil surveys are frequently in the reference section of local libraries.

In a county soil survey, exact properties can be pinpointed on aerial photographs. Specific soil types are described as being good for certain kinds of plants, for residential development, for septic tanks, etc. A survey also includes information such as depth of the **water table** throughout the year; water table depth can be key in determining growing conditions for trees and other plants.

Remember to take into account any fill material that may have been brought in. Try to learn from the builder if local soils were used. It is common to dig retention pond areas and use that dirt for the foundation fill. But remember that even then, soils that are altered through disturbances can't necessarily be equated to undisturbed soils from the same area. Also be aware that substances may have been spilled or buried during construction. If there's an apparently unplantable area in the landscape, dig for debris or excavate the problem area and replace with topsoil.

Knowing the following about your soil conditions is fundamental to matching the right plants to your site:

- pH
- · Sand, clay or rich soil
- Drainage

To determine drainability, fill a hole with water and note how quickly it drains. Knowing the water table level can also be important; a high water table (close



Salt marsh

to the surface) could influence growing conditions. The highest water table level of the year is generally in August.

To determine a high water table, dig a hole and see if water seeps into it.

Once you have the results of your soil analysis, the fun really begins — looking for plants!

## 3. Choose Proper Plants

Try to keep as much of the existing vegetation as possible. If a plant grew in an area without your help, then conditions there are obviously right for it.

Choose plants that can survive on normal rainfall in your area or that require minimal irrigation. Existing native-plant communities are an example of the "right plant in the right place." There are also nonnative plants cultivated specifically for Florida conditions that are water-efficient and resistant to disease and pests here. However, there are also some plants that do too well because they don't have any natural balances in the Florida environment, and they become highly invasive.

And remember, the success of your Xeriscape landscape depends as much on where you locate plants as on what plants you use. Plant it smart!

Learn each plant's

- Mature size (height and width)
- Sun and shade requirements
- Soil needs
- Water needs
- · Salt and cold tolerances

Match these factors with your soil and climatic conditions.

#### DO YOU NEED SALT-TOLERANT PLANTS?

Many areas in Florida have salt prevalent in the air and the water; this is particularly true near the coast and salt marshes. Salt can even find its way into wells. Exposure to salt may severely damage or kill some plants, so if necessary, choose plants that can tolerate such exposure. Salt is alkaline, so a plant's tolerance for salt indicates its tolerance to alkalinity.

Where does this salt originate? Homes near the beach experience salt spray, with stiff winds blowing fine particles of salt and sand onto plants. Different plants can take varying degrees of this salt exposure. Some can't tolerate it at all. Consult the Cooperative Extension Service for a list of salt-tolerant plants.

Irrigation water may also be salty, or **saline**. In some areas, the water taken from the ground is naturally high in salt. Other areas suffer from



saltwater intrusion, where salt water moves underground into freshwater aquifers due to overpumping of the aquifer. If the salinity level in irrigation water is too high, the water can kill plants. Also, be aware that some household water treatment systems add salt to the water to remove iron or other minerals. Don't use this water for plants.

Use this guide and consult a plant specialist to determine if a plant is salt-tolerant. If you suspect salt problems, have your water tested for salt content. Contact your County Cooperative Extension Service for more information about testing water for salt.

The general vegetation map of Florida in this guide indicates the original native-plant communities throughout the state. Different plant communities often converge gradually in what is called **ecotones** — regions where one ecosystem blends into another. Sometimes pockets of one community are surrounded by another.

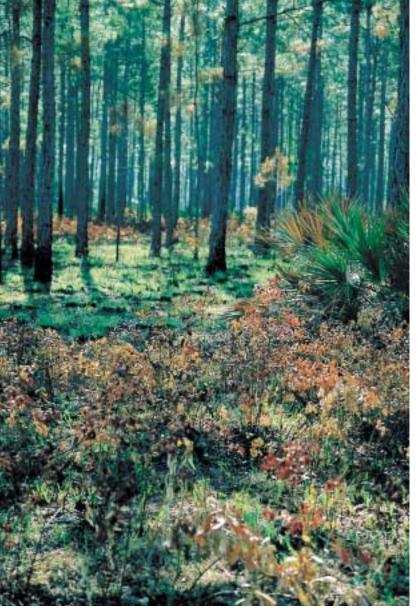
Observing the differences in ecotones can help determine differences in the landscape, helping to identify the best plants for the microclimates throughout the landscape.

#### FLORIDA'S PLANT COMMUNITIES

#### Coastal Uplands

BEACH DUNE SYSTEMS — Alkaline to neutral soils of coarse sand and shell; well drained, with some salt; low fertility; dry, hot, sunny and windy conditions. Common species include Spanish bayonet, saw palmetto, seaside purslane, saltmeadow cordgrass, beach morning glory, blanket flower and beach dune sunflower.

Maritime forests — Soil pH moderately alkaline to neutral; sandy with some shell and periodic shell mounds. Retains some moisture though well drained, with humus fertility. Plants indigenous to this community will tolerate some salt, wind, shade and drought. Some common plants include southern red cedar and magnolia, redbay, sand live oak, cabbage palm, American holly, Hercules'-club, saltbush and coontie.



Pine flatwoods

#### Pine Flatwoods

The most common plant community in Florida. Acidic, sandy soil with a hardpan layer 1–3 feet below the surface. Moisture levels vary from dry to nearly saturated during the wet season. Fires caused naturally by lightning occur every 5–10 years, leaving ash to fertilize new growth. In earlier decades, the pine flatwoods floor was cleared by fire. Now, without regular fires, a **shrub strata** dominates. In managed conservation areas, controlled burns are conducted to reduce the amount of fuel plants on the forest floor and to encourage growth of **herbaceous** species.

The most dominant species include longleaf pine, slash pine or pond pine (depending on hydric conditions), saw palmetto, gallberry, fetterbush and tarflower. The forest floor has herbaceous species such as wiregrass, muhly grass, blazing star, violets and lilies — species adapted to both wet and dry conditions. Occasionally there are dahoon holly, persimmon, maple trees, loblolly bay and sweetbay.

#### Sandhills

High pinelands of open longleaf pine with wiregrass and shrubs and turkey oaks, over rolling uplands and sand ridges, with deep, acidic sandy soil that is very well drained. Sandhills grade into pine flatwoods and are often adjacent to, or interspersed with, islands of scrub throughout Florida.

#### Hardwood Forests

Hardwood hammocks occur in patches in temperate areas of Florida. The soils are acidic and sandy; the range is through the three moisture zones: **xeric**, **hydric** and **mesic**.

UPLAND MIXED FORESTS — Occur throughout Florida's northern panhandle region on upland clay soils over limestone bedrock. The canopy and **understory** are highly diverse, dominated by hardwoods, mostly oaks, with some pine species which are more prominent in earlier successional phases.

UPLAND MESIC HARDWOOD FORESTS — Oak-hickory to pine-oak-hickory; range is through central to west-central Florida on rich upland soils and clay hills.

#### Forests of Abundant Cabbage Palms

Sand over **marl**; flat hammocks of cabbage palms and live oaks; rarely flooded.

#### Rocklands

The uplands of southern peninsular Florida and the Keys; highly impacted by human development.

PINE ROCKLANDS — Porous limestone with sandy **humus** and marl; good drainage. Plant species include South Florida slash pine, cabbage palm and saw palmetto, with ferns, sedges and more than a hundred herbaceous species.



#### Oaks and palmettos

TROPICAL HARDWOOD HAMMOCKS — Alkaline limestone with moist humus. The diverse canopy carries many **epiphytes**, such as bromeliads, orchids and ferns. The canopy includes live oak, gumbo limbo, black ironwood and mahogany. The understory ranges from temperate to tropical species and includes white, red and Spanish stoppers, spicewood, beautyberry and wild coffee.

#### **Prairies**

DRY PRAIRIES — Similar to pine flatwoods without the pine overstory; dry prairies occur in central and southern Florida. Sandy, acidic soil is present, often with hardpan and a high water table, becoming inundated only after heavy rain. Dominant species are wiregrass and broomsedges.

WET PRAIRIES — Often intermingles in ecotones with pine flatwoods, with few sparse pines, if any, allowing the sun through to stimulate a flourishing of herbaceous flora. Wet prairies are inundated by water 50–150 days of the year.

#### Scrub

Consists of Florida's rarest plants and animals. The land area of this endangered habitat was reduced by more than 90 percent during the 20th century, leaving fragments, often in degraded condition. Distinct plant and animal species have developed specifically to these unique conditions.

Infertile, sandy, excessively drained soils are high aquifer **recharge areas**, making scrub particularly important ecosystems. These forests consist of scrub sand pine, small scrub oaks, rosemary shrubs and scrub palmetto.

SCRUB CYPRESS — Occurs in south Florida with thin marl soils over limestone; scrub pond cypress with sedges and grasses. Adjacent to the Everglades; often flooded.

#### Cypress Swamp Forests

Inundated by water most of the year. Can border rivers and lakes or be isolated; dominated by bald cypress in flowing systems and pond cypress in stagnant systems.

#### Wetland Forests

SWAMP FORESTS — Flooded most of the year along rivers and basins; characterized by pond cypress, bald cypress, red maple, water hickory, ashes and tupelo.

HYDRIC HAMMOCKS — Moist sites flooded occasionally, with evergreen and deciduous hardwoods of red maple, loblolly bay, water oak, Florida elm and cabbage palm.

#### Coastal Saline Wetlands

Water levels in coastal wetlands are under the constant influence of tides, thus the degree of salinity varies from salt water to brackish.

COASTAL SALTWATER MARSHES — Occur in north and west Florida; grasses and rushes.

Mangrove swamps — Occur in central and south Florida coastal areas that flood, then drain, creating thick nutritious muck.

#### WHAT TO PLANT

Plant lists should be generated for the different areas of the landscape based on growing conditions and desired characteristics.

Plantings should be placed with consideration for changes which will take place over time. In natural plant communities, these changes are called **succession**. Succession is the evolution of plants starting out, maturing, being replaced by other plants, and eventually developing to a climax, or a balanced, mature ecosystem.

In most landscapes, succession is halted by deliberate maintenance practices. Yet plants tend to strive toward succession. By planning for each plant's mature state, a dynamic landscape can be planned to include natural changes.

When plants are first put into a landscape, the area should look unfinished, as the landscape must be given space and time to grow. Plan to replace sun-loving plants with shade-tolerant plants as the larger elements in the landscape such as trees and shrubs grow and create shade.

Remember, many so-called shrub species are actually 20-foot multi-trunked trees. Select plant species that will mature to a height and width that will fit the planting location. If you want a shrub that only grows 2–4 feet tall, find a dwarf variety or use ornamental bunch grasses or flowering perennials like pentas and scarlet milkweed.



Mixed hardwood



Cabbage palm, seagrapes and coontie fill this landscape.

#### PLANTING FOR EFFICIENT WATER USE

Group plants in appropriate conditions according to their water needs. If plant placement is done correctly, once plants are established, little to no supplemental irrigation will be necessary.

When plantings do need supplemental watering, choose the right irrigation heads. Turf areas and planting beds should always be in separate irrigation zones. This separation allows for different irrigation schedules and different irrigation heads, such as pop-ups for turf or drip heads for individual specimen plants such as shrubs or perennials.

NATURAL ZONE — In this area, place plants that have adapted to the wet and dry extremes of Florida's climate so that regular watering (once plants are established) won't be necessary, except during prolonged drought.

DROUGHT-TOLERANT ZONE — In this area, place plants that can survive extended periods of time without rain or supplemental irrigation.

OASIS ZONE — In this area, place plants that may require some watering.

Plants native to Florida can play a very dependable role in the landscape. Many of Florida's plants have evolved through periods of extreme wet and then dry weather, so they survive through drought and don't get root rot standing in water. They have also developed defenses to the diseases, fungi and insects which originate in Florida. Many have proven wind tolerances in areas that experience tropical storms and hurricanes.

Strive to establish a yard that is largely sustained by existing conditions, then if specialty plantings such as vegetables or roses are desired, a more laborand resource-intensive planting bed can be created in one or two areas.

Remember, the overriding guidance should be to put the right plant in the right place.

## 4. Use Turf Wisely

Grass can be a practical part of your landscape in the right place, for example, in a play area for children. Follow these simple tips for a healthy lawn and to reduce maintenance:

- Go LIGHT ON THE FERTILIZER. Fertilization stimulates growth and increases water needs. If you do fertilize, use a slow-release nitrogen product. Water-insoluble products won't be washed away like liquid or fast-release fertilizers, which can contaminate waterways through stormwater or irrigation runoff. The slow-release products stay in the soil to supply nutrients to plants on a gradual basis, over a longer period of time.
- LEAVE SHORT GRASS CLIPPINGS WHERE THEY FALL WHEN YOU MOW. This reduces the lawn's need for both water and fertilizer. However, remove thick patches of clippings, which will decay and kill the grass.
- RISE TO NEW HEIGHTS. That is, raise the height of your lawnmower blades to the highest setting. When you mow the grass, remove no more than one-third of the leaf blade. Cutting grass shorter than this may stress the grass and may also decrease the depth to which roots will grow, increasing the need for water. Most St. Augustine grass and bahia grass varieties should not be mowed below 3 inches in height.
- KEEP A SHARP CUTTING EDGE. When your lawnmower blades are sharp, they give a clean cut. Grass torn and shredded by dull blades suffers stress and requires more water.
- Consider alternatives to Grass. Grass can be a useful plant. Use grass in areas where children or pets play, or for erosion control. In low-use areas, consider drought-tolerant-plant beds, **groundcovers**, mulch, walkways or other alternatives that require little or no water.

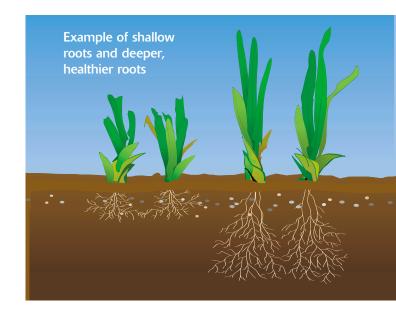
## 5. Irrigate Efficiently

In many yards, the major oasis area is the grass. In some Florida locations, grass will need extra help from irrigation; in other areas, rainfall may be adequate.

If an irrigation system is needed, choose each device based on what will most efficiently water each group of plants. Pop-up sprinklers work well for the lawn, but planting beds or **specimen plantings** are more effectively irrigated using a drip, bubbler or micro-irrigation spray head. An example of micro-irrigation is a low-volume irrigation emitter, a device that applies water directly to the root zone of plants.

Florida law requires that all automatic irrigation systems installed after May 1991 have a rain sensor shut-off switch that overrides the irrigation cycle when adequate rainfall has occurred (Chapter 373.62, *Florida Statutes*).

- USE A RAIN GAUGE. Keep track of how much rain has fallen in your yard. Do not adhere to a rigid irrigation schedule. When it rains, you probably don't need to water. During periods of extended rainy weather, irrigation systems should be turned off.
- IRRIGATE ONLY WHEN PLANTS OR GRASS NEED IT. Water plants that begin to show signs of stress. Signs of stress for grass include leaves wilting or grass blades folding in half, or soil from the root zone feeling dry. Your





Shasta daisies

lawn needs watering if grass blades start turning a bluish-gray color or if footprints linger after being made. Overwatering is often the cause of many common problems, such as dollar weed and fungal growth.

- Water if it hasn't rained. St. Augustine grass only needs rain or watering once or twice a week in summer and once every 8–14 days from December through February. Bahia grass needs water less often.
- GIVE YOUR LAWN AN AVERAGE OF HALF AN INCH OF WATER. To determine how long it takes your system to put out half an inch of water, place cans or other containers around the yard and measure the water collected in half an hour. Measure the amount in each can, add together, then divide for the average. Turf should not receive more than 1 inch of water per week.
- Help grass and plants develop deep root systems. It is better to water your lawn and plants well once a week than it is to water lightly each day, but apply water only as quickly as the soil can absorb it. Thorough watering encourages roots to establish themselves deeper in the soil, which makes them more drought-tolerant. Frequent light watering causes roots to stay too close to the surface, where they are dependent on regularly recurring precipitation or irrigation and are more likely to suffer in dry times. The exception to deep watering is for newly installed plants, where the roots are still closer to the surface. These plants need light, morefrequent waterings until they adjust to the new location, generally about 30 to 60 days. Other plants, shrubs and trees may need longer to become established.

• WATER EARLY IN THE DAY. To minimize loss of water through evaporation, water early in the morning, before sunrise. When the sun rises, it will dry plants, reducing the potential for fungal growth or diseases. Leaving plants wet overnight creates conditions for fungal growth. Watering in the heat of the day is prohibited in some areas of Florida under rules established by the water management districts. In addition, watering in the middle of the day results in water loss through evaporation.

#### **OUTDOOR WATER CONSERVATION TIPS**

- Observe water restrictions in your area. Under Florida law, the water management districts have established water conservation rules. Where there is a year-round watering rule, it applies to everyone who uses water outdoors homes, businesses, nurseries, golf courses regardless of the water source, whether private well, public utility or surface water. There are some exceptions to the water restrictions, such as when reclaimed or reuse water is being used. Any local water restrictions that are more strict than the water management districts' must be followed. Violating Florida's water restrictions is punishable with penalties of up to \$500, with additional fees as applicable.
- Conserve water by installing a rain sensor or rain shut-off switch. State law (Chapter 373.62, FS) requires these devices on automatic sprinkler systems installed after May 1991. These devices automatically turn off the irrigation system after adequate rainfall. There are some local ordinances that also require older systems to be retrofitted with shut-off switches.
- Inspect your irrigation system regularly. Check all hoses, pipes and fittings for leaks, which can waste hundreds or thousands of gallons of water every week. Repair broken or clogged spray heads and emitters and adjust them to keep from watering the pavement. Also, using a rain gauge in the yard is a good way to make sure the rain shut-off switch is working.

- Use filters in micro-irrigation systems. Filters can help reduce clogging. Filters should be cleaned regularly.
- Use an automatic shut-off nozzle at the end of a hand-held hose. Sweep sidewalks or driveways instead of hosing them down.

#### 6. Use Mulches

If you already use mulches in your yard, you're ahead of the game. Placing a layer of mulch directly around shrubs and trees and on flower beds helps to conserve water. In fact, mulch:

- Helps retain moisture in the soil
- Decomposes slowly, adding nutrients to the soil
- Provides habitat or cover for beneficial soil organisms
- Shades soil from the baking sun, reducing the need for water
- Protects against soil erosion and compaction caused by rain
- · Reduces weed growth
- Reduces maintenance chores; keeps lawn mowers and weed trimmers from damaging trees and other plants
- Looks good in the landscape



Mulch can include bark chips, pine needles or leaves. Using leaves for mulch eliminates having to burn or bag the leaves for landfill disposal. Cypress mulch, although widely available, is not a good environmental choice because cypress are slow-growing native wetland trees that are often taken as whole, mature trees and chipped into mulch just to help meet market demand. Cypress are far more valuable to us in their environment than as mulch in the landscape. Alternative sources of mulch, such as melaleuca, eucalyptus, Australian pine and recycled matter from yard cuttings, are suggested instead. Some of these environmentally friendly alternatives are obtained from nonnative pest trees and are becoming increasingly available.

For best results, spread 2–4 inches of mulch on plant beds. Keep the mulch several inches away from the plant stems to protect the stems from rotting. Gradually increase the thickness of the mulch layer going out from the plant. Add new mulch as needed, stirring the old mulch to promote air and moisture circulation to avoid matting.

Don't use compost or mulch that has diseased material. Get mulches from a reputable dealer, as mulches can contain contaminants such as undesirable seeds or insect pests. Mulching holds moisture and may attract termites, so should not be piled up right next to a building's foundation.

Be aware that **inorganic** mulch such as gravel or colored rocks will not hold moisture. Moreover, white rock reflects heat, which is stressful to plants.

## 7. Perform Proper Maintenance

An environmentally balanced, low-maintenance landscape starts with the previous steps of analysis, planning and selecting the plants suitable for the site. A diverse array of plant species will attract a variety of insects to the area, helping to create a balanced food chain so that no one species can become dominant enough to become a major pest problem. This way, nature works for you to make landscaping and maintenance easy and rewarding.

#### NATURAL PEST MANAGEMENT

Only a fraction of a percent of all insects known to humans are considered pests, and these species are generally herbivores, eating plants we want for ourselves — either for food or for ornamental value. A food chain always has carnivores looking to eat herbivores. Predators — including predatory insects — that eat our "pests" are called "beneficial" organisms. But it doesn't stop there. Birds, bats, lizards and frogs also eat insects. All part of the food chain, this diversity of life creates a living balance and will do so in the landscape if allowed.

If we try to eradicate an organism that is pestering us, we risk poisoning not only the pest, but also the beneficial organisms that would decrease the pest populations. If broad-spectrum pesticides are applied to the landscape, many beneficial organisms could be killed.

Integrated pest management (IPM) is a proven concept for controlling pests. IPM is also a good way to protect water quality.

The basic premise is to use the least toxic method and to limit any treatments to affected areas, not the entire yard. Observation, or scouting, is the basis to understanding what the most effective method will be. First, determine if there really is a problem. Consider tolerating some plant damage as part of nature's process. For example, caterpillars that become butterflies can eat the leaves off certain plants before forming a cocoon, only to have the plant come back later as healthy as before.

If observation proves there is a problem, learn about the pest organism's life process so you can disrupt that process. For example, mosquitoes need stagnant water to lay eggs. During mosquito season, removal of even the smallest standing pools of water — in pots, or even in bromeliads — will help decrease mosquito population in an area.

When using chemicals, spot-treat the affected area only, at a time when the pest is most vulnerable. Mole crickets, for example, are mostly affected by pesticides when they are young. Verify their level of development by flushing them out of the turf with a



Seagrapes and palms

biodegradable soap solution — the mole crickets will climb out of the turf to escape the soap.

Rather than routinely applying chemicals to the entire lawn, spot-treat pests and problem areas while problem areas are small and localized. This will minimize pesticide use and avoid killing beneficial organisms.

#### **WEEDS**

Weeds are often the hardy annuals and perennials that lead succession. Soil left bare will soon be growing something. To minimize the growth of unwanted plants, mulch and/or keep areas planted. Remove any weeds as they emerge, before they develop seed heads or extensive root systems that compete for moisture and nutrients.

#### COMPOSTING

Plant leaves manufacture sugar from sunlight, water and carbon dioxide. Other nutrients and minerals are drawn from the soil where they have built up from decayed leaves and other material that falls in natural settings. Frequently, cultivated areas are stripped clean of these wastes, then petroleumbased fertilizers are applied to replace the natural food source.

Compost is the cheapest and most nutritious fertilizer available. Leaves and pine needles piled or left as mulch to decay under plants and trees slowly return essential elements to the soil, while helping retain moisture.

Mulch and compost help soil maintain a healthy balance of microorganisms and other soil builders, such as earthworms. Petroleum-based fertilizers can be totally replaced with lots of compost and mulch.

#### **FERTILIZING**

Once established, your water-conserving yard may require only moderate amounts of supplemental fertilizer. Overfertilizing aggravates pest problems, stimulates excessive growth and requires frequent watering. Fertilizers mobilized by irrigation water or rain can **leach** into **groundwater** and be carried by stormwater runoff into waterways.

When needed, the best choice for plants and the environment is slow-release fertilizer. The package label on the fertilizer will say organic, slow-release or controlled release, water-insoluble nitrogen, sulfurcoated, IBDU, or resin-coated. Also look at the label for inclusion of trace minerals.

Fertilization should be used when specific nutrient deficiency symptoms are evident. Natural sources of these nutrients are available and inexpensive.

Nitrogen — grass clippings, compost, cottonseed meal Phosphorus — compost, rock phosphate (many Florida soils are already phosphorus-rich)



Potassium — compost, aged manure, fireplace wood ashes (raises soil pH)

Some plants can make nutrients available in the soil for the benefit of other plants. Clover, for example, "fixes" nitrogen (takes in nitrogen from the air), making it available for grass. Thus, leaving clover mixed in with lawn grasses is actually healthier than trying to eliminate it.

#### **PRUNING**

If a plant is placed in the right location and given enough room to mature, pruning should be minimal. Prune to retain the natural shape, or structure, of trees and shrubs and to promote or maintain strong structure. Less pruning is usually better because pruning is stressful to a tree or shrub, which causes it to require more water. Also, pruning at the wrong time of the year can stress plants.

Your County Cooperative Extension Service office has brochures with simple graphics showing how to make proper pruning cuts.

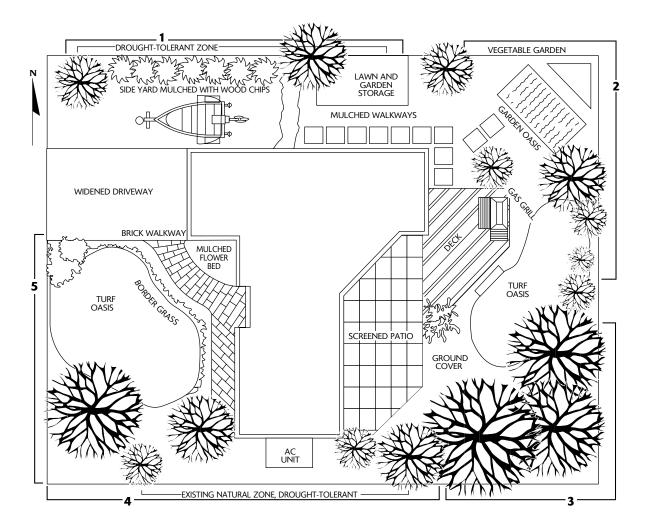
- *Trees* Prune carefully to promote strong development in the trunk and main branches. Don't prune the first year after transplanting. Never cut off the top of a tree to control height.
- *Palms* Only dead and diseased fronds should be removed. If a palm frond is living and green, it is producing energy for the plant and should not be cut.
- *Shrubs* Shearing shrubs results in foliage forming only at the outer, sheared surface, with no internal foliage. By selectively thinning branches following the natural shape of a shrub, you can open the shrub foliage to permit light penetration while retaining some control over its size.

An example of "hat racking," a pruning practice that stresses a plant and increases the plant's water needs.

## **A Landscape Example**

- 1. Our drought-tolerant natural zone next to the driveway has mulch and low-water shrubs instead of grass. This zone continues along the length of the house and eliminates watering, mowing and edging chores in low-use areas. Notice how the shrubs serve as a buffer to our northern neighbor and as camouflage for the storage area.
- 2. Our turf area in the backyard is located in the landscape's lowest spot, which is where there is plenty of naturally occurring moisture. Alternatives to grass include a garden, a deck or a screened patio. These additions don't need water and reduce landscape maintenance chores.
- 3. More drought-tolerant groundcovers and shrubs hug the back of our **practical turf area**. These plants

- give privacy to our patio and deck while providing shade, and they are water-efficient.
- 4. Native vegetation, including drought-tolerant shrubbery, is used in the side yard. We selected plants appropriate for an area seldom seen or used. This decision further reduces watering and maintenance chores.
- 5. Our practical turf area in the front yard, like that in the back, is round in shape to reduce its perimeter, making it easier to irrigate and maintain. Long, narrow strips of grass are hard to irrigate efficiently. A brick walkway, border grass and a mulched flower bed further reduce watering and edging chores and add colorful accents.



TREE	S							N. T. G.
Common Name	Scientific Name	Florida Hardiness Range	Soil Moisture Range*	Light Range*	Mature Size (feet)**	Growth Rate	Comments	1
Acacia, sweet	Acacia farnesiana	9b-11	0-66		15x20		Small thorny, bushy tree; fragrant flowers; subject to wind damage, will suffer frost damage; likes sandy to clay soil; evergreen; salt-tolerant; native	M 7- 4 3 M
African tulip tree	Spathodea campanulata	10b-11	<b>♦♦</b> − ◊		50	Ш	Low-maintenance, messy tree; orange and yellow flowers during winter and spring; evergreen; medium salt	
Allspice	Pimenta dioica	10b-11	••		40	<b>1</b> 0000	Beautiful small tree with exfoliating bark; source of allspice; evergreen; low salt	
Apple, Anna	Malus domestica 'Anna'	8a-9b	••		18–20	Ш	Cross-pollination required; few fruits produced in south Florida; low salt	
Ash, green	Fraxinus pennsylvanica	8a–8b	<b>***</b>		30x75	IIII	Deciduous; medium salt; native	
Ash, pop	Fraxinus caroliniana	8a-10a	<b>***</b>		20x40	Ш	Crooked, multi-trunked tree; deciduous; low salt; native	
Atemoya	Annona x 'Atemoya'	10a-10b	0-66	* *	30		Hybrid; likes well-drained, alkaline soil; evergreen; medium salt	
Avocado	Persea americana	10a	••		20–60	Ш	Easily cold-damaged; Brogdon is a hardier variety; many varieties available; evergreen; medium salt	
Banana, Cavendish	Musa acuminata 'Cavendish'	10b-11	••		5-7	IIII	Needs heavy mulching; spectacularly large flowers; will die back with freeze; low salt	
Bangar nut	Sterculia foetida	10a	••		75	Ш	Stinky flowers; deciduous; low salt	
Basswood	Tilia americana	8a-9b	••	* *	35x80		Leaves similar to mulberry without lobes; likes acidic soil; deciduous; low salt; native	
Beech, American	Fagus grandifolia	8a-8b	••		60x90	10000	Smooth bark; likes acidic soil; deciduous; wildlife value; native	
Birch, river	Betula nigra	8a-9a	<b>♦♦</b> − ◊		25x50	IIII	Attractive peeling bark; likes acidic soil; deciduous; low salt; native	
Black olive	Bucida buceras	10a-11	٥		30x45		Overpopular; spiny; leaves will stain surfaces; subject to freeze damage; evergreen; high salt	
Black sapote, chocolate pudding fruit	Diospyros digyna	10a-11	••	- <del>\</del>	25	IIII	Can't tolerate drought; evergreen; low salt	
Blackgum	Nyssa biflora	8a–9a	<b>***</b>	<del>-</del>	80		Dark blue fruit in pairs on stalk; likes acidic soil; deciduous; low salt; native	
Blackhaw viburnum or Rusty blackhaw	Viburnum rufidulum	8a–9a	<b>♦♦</b> − ◊	* *	15x20	IIII	Shrub or small tree with irregular crown, white flowers, purple fruits; reddish underleaf and buds; wildlife value; deciduous; low salt; native	
Blolly	Guapira discolor	9b-11	••		30x40		Drought-tolerant; smooth gray bark, attractive leaves, purple fruit; wildlife food; evergreen; high salt; native	
Bradford pear	Pyrus calleryana	8a-9a	<b>○</b> - ♦ •		20x30	IIII	White spring flowers, colorful fall foliage; lives about 30 years; evergreen; high salt	
Buckthorn, Carolina	Rhamnus caroliniana	8a-9b	••		20x25		Native	
Bulnesia	Bulnesia arborea	10b	<b>♦♦</b> − ◊		20x30		Beautiful flowering tree; pot-bound plants produce weak-rooted trees; evergreen; high salt	
Buttonwood	Conocarpus erectus	10a	<b>♦♦-♦♦♦-</b> ◊		15–25		Good seaside plant; silver-leaved variety widely grown, native variety available; high salt; evergreen; native	
Carambola	Averrhoa carambola	10b	••	<u></u>	25	IIII	Edible orange star-shaped fruits produced year-round; can't tolerate flooding; evergreen; low salt	
Cedar, southern red	Juniperus virginiana (= J. silicicola)	8a-9b	<b>○</b> - ♦ •		25x60	IIII	Adaptable, long-lived; don't plant near hawthorns — apples cause cedar apple rust disease; evergreen; high salt; wildlife value; native	
Cherry laurel	Prunus caroliniana	8a-9b	••		35		Tolerates some dryness, does better in moist, well-drained areas; poisonous to livestock; hardy to about 10°F; evergreen; moderate salt; native	
Chinquapin	Castanea pumila	8a–9a	<b>♦♦</b> − ◊	<del>-</del>	15x40		Spiny fruit encloses sweet, edible nut; white spiked blooms on males; likes alkaline soil; deciduous; moderate salt; native	
Colville's glory	Colvillea racemosa	10a+	••		45		Beautiful late fall flowers; deciduous; low salt	
Common persimmon	Diospyros virginiana	8a-10	<b>○</b> - ♦ ♦	<del>-</del>	15x50		Edible fruit; grows best in central and north Florida; deciduous; low salt; native	
Copperpod	Peltophorum pterocarpum	10a-11	<b>○</b> - <b>●●</b>		25x50	IIII	Shallow-rooted; blows over in windstorms; well-drained soil; deciduous; high salt	
Crabwood	Gymnanthes lucida	10a+	<b>○</b> - ♦ •		20	<b>1</b> 0000	Small, densely branched; not readily available; evergreen; moderate salt; native	
Crape myrtle	Lagerstroemia indica	8a-11	<b>♦♦</b> − ◊		15x25		Attractive bark, showy summer flowers; don't prune branches larger than 1/2-inch diameter; deciduous; moderate salt	
Cuban tamarind	Lysiloma sabicu	10b-11	<b>♦♦</b> − ◊	- <u></u>	25x50		Deciduous; high salt	
Custard apple	Annona reticulata	10a	••		40x15		Selected varieties available; deciduous; low salt	
Cypress, bald	Taxodium distichum	8a–11	♦♦♦♦ - ◊	<u></u>	25x80	Ш	Needles turn brown in winter; knees emerge aboveground in root zone; evergreen; high salt; native	
SOIL MOISTURE O Dry	♦♦ Moist ♦♦♦♦ Wet	LIGH	T - Full Sur	n <u></u>	Sun 솓	Shade	GROWTH RATE [000] Slow [100] Medium [100] Fast   * Soil moisture and light listed in order of plant prefere.  ** Mature size = width x height	nce

TREE	S							
Common Name	Scientific Name	Florida Hardiness Range	Soil Moisture Range*	Light Range*	Mature Size (feet)**	Growth Rate	Comments	
Cypress, pond	Taxodium ascendens	8b-11	<b>***</b>	<u>*</u>	15x75	IIIII	Needles turn brown in winter; knees emerge aboveground in root zone; evergreen; high salt; native	MA A SE
Dawn redwood	Metasequoia glyptostroboides	8a	<b>66-666</b>		20x90	IIIII	Evergreen; low salt	
Dogwood, flowering	Cornus florida	8a-9a	<b>♦♦</b> − ♦	<u></u>	20–25	<b>1</b> 0000	Best in rich soils, likes acidic to neutral soils; deciduous; low salt; native	
Dogwood, Japanese	Cornus kousa	8a	••		20x25		Deciduous; moderate salt	
Dragon tree	Dracaena draco	10a	<b>♦ • • • • • • • • • • • • • • • • • • •</b>		45	<b>1</b> 0000	Tree-like fern; lance-shaped foliage, red sap; evergreen; high salt	
Eastern hop hornbeam	Ostrya virginiana	8a-9a	<b>♦♦</b> − ◊	<i>∠</i> <u>¥</u>	40	<b>1</b> 0000	Common to woodlands with good drainage; deciduous; low salt; wildlife value; native	
Eggfruit, Canistel	Pouteria campechiana	10b-11	••		20		Sweet-tasting yellow fruit; requires minimal care; evergreen; high salt	
Elm, American	Ulmus americana	8a-9b	<b>♦♦</b> - ◊ - <b>♦♦</b>	<u>*</u>	30x40	IIII	Vase-shaped; deciduous; low salt; native	
Elm, Chinese	Ulmus parvifolia	8a-10a	••	<u> </u>	35x65		Weeping growth habit; cold-hardy, but foliage drops at 25°F; likes fertile, moist conditions; deciduous; low salt	
Elm, winged	Ulmus alata	8a-9a	<b>**</b> - <b>***</b>	<u>*</u>	5x40		Small with oval crown; interesting corky, winged bark; deciduous; low salt; native	
Fiddlewood	Citharexylum spinosum (= C. fruticosum)	10a-11	<b>♦ • • • • • • • • • • • • • • • • • • •</b>	<u></u>	10x35	IIII	Small fragrant flowers, spring through autumn; evergreen; moderate salt; native	
Fig, edible	Ficus carica	8a–10b	••		12	IIII	Tolerant of widely varying soils; low salt	
Firewheel tree	Stenocarpus sinuatus	10a-11	•• - ◊	<u></u>	25x60		Attractive glossy leaves; columnar growth habit; evergreen; low salt	
Florida soapberry	Sapindus marginatus	8a-9b	••		25x50		Small tree or shrub; high salt; native	
Floss-silk tree	Chorisia speciosa	10a	•• - ◊		45	IIII	Spiny green trunk, spectacular flowers; deciduous; high salt	
Frangipani	Plumeria spp.	10b-11	٥	*	15x25	<b>1</b> 0000	White, yellow or orange flowers in spring, summer and fall; evergreen; moderate salt	
Fringe tree	Chionanthus virginicus	8a-9a	<b>♦♦</b> − ◊	*	10x25	<b>1</b> 0000	Drought-tolerant; likes acidic soil; wildlife food; deciduous; low salt; native	
Geiger tree	Cordia sebestena	10b-11	<b>○</b> - <b>♦ ♦</b>	*	15x25		Round crown, showy orange blossoms; attracts caterpillars; likes sandy soil; evergreen; high salt	
Golden shower	Cassia fistula	10a-10b	٥		25x50	IIIII	Very attractive flower; deciduous; moderate salt	
Grapefruit	Citrus x paradisi	9a-11	••		20	IIIII	Swallowtail butterfly host plant; needs good mulching; likes acidic soil; evergreen; low salt	
Gumbo limbo	Bursera simaruba	10a-11	<b>♦♦</b> − ◊	<u></u>	35x60	IIIII	Large branches will root directly; attractive copper and green peeling bark; easily freeze-damaged; deciduous; high salt; native	
Hercules'-club	Zanthoxylum clava-herculis	8a-10b	<b>♦♦</b> − ◊	* *	15x45		Round crown, interesting compound leaves, tall clusters of greenish flowers; thorny; deciduous; high salt; native	
Hickory, mockernut	Carya alba (= C. tomentosa)	8a-9b	<b>○</b> - ♦♦	<u>*</u>	35x60	IIIII	Yellow autumn leaves; deciduous; low salt; native	
Hickory, pignut	Carya glabra	8a-9a	<b>♦♦</b> − ◊		25x75	IIIII	Likes clay soil; deciduous; low salt; native	
Hickory, scrub	Carya floridana	9a-10a	٥		25		Rarely cultivated; likes sandy soil; deciduous; low salt; native	
Holly, American	llex opaca	8a-9b	<b>♦ ♦</b>	* *	15x45		Very spiny, stiff leaves, gray to white bark; prefers acidic soil; wildlife food and shelter, evergreen; moderate salt; native	
Holly, Carolina	llex ambigua	8a-9b	<b>♦♦</b> − ◊	*	15		Shrubby; bright-red 1/3-inch fruits; tolerant of varying conditions and sites; evergreen; native	
Holly, dahoon	Ilex cassine	8a-10b	<b>**</b> - <b>***</b>	<u></u>	10x50		Red berries; grows in boggy sites; evergreen; moderate salt; native	
Holly, East Palatka	Ilex x attenuata 'East Palatka'	8a-9b	<b>○</b> - ♦♦	<u></u>	10x30		Red berries; cross between American and dahoon hollies; prefers acidic soil; evergreen; moderate salt; native	
Holly, myrtle-leaved	llex myrtifolia	8a-8b	<b>**</b> - <b>***</b>	* *	10x25		Shrubby; small narrow leaves, 1/4-inch fruits; evergreen; wildlife food; moderate salt; native	
Holly, yaupon	Ilex vomitoria	8a-9b	<b>○</b> - <b>♦ ♦ ♦</b>	<u></u>	15x20	<b>1</b> 0000	Small, bushy, with many branches; red fruits, small leaves; evergreen; high salt; native	
Hong Kong orchid tree	Bauhinia x blakeana	9b-11	<b>♦ - ••</b>	*	15x40	IIIII	Evergreen; moderate salt	
Hornbeam, American or ironwood	Carpinus caroliniana	8a–9a	<b>**</b> - <b>***</b>	<u>~</u> <u>*</u>	15x50	<b>1</b> 0000	Also called ironwood; deciduous; low salt; native	
Jaboticaba	Myrciaria cauliflora	10b-11	••	<u></u>	15x25	<b>1</b> 0000	Large shrub size; attractive bark, delicious fruit; likes moist but well-drained soil; evergreen; low salt	
SOIL MOISTURE O Dry	♦♦ Moist ♦♦♦♦ Wet	LIGH	T - Full Sun	Partial	Sun 솓	Shade	GROWTH RATE []]]]] Slow []] Medium []] Fast   * Soil moisture and light listed in order of plant	reference

TREES	5	Florida Hardiness	Soil Moisture	Light	Mature Size	Growth	
Common Name	Scientific Name	Range	Range*	Range*	(feet)**	Rate	Comments
Jacaranda	Jacaranda acutifolia	9b-11	<b>♦♦</b> − ◊		40x50	IIII	Fragrant lavender flowers in spring and summer; young trees damaged at 25°F, older trees slightly more tolerant of cold; prefers loose, sandy soil; deciduous; low salt
Jamaican dogwood	Piscidia piscipula	10b-11	<b>○</b> - <b>♦ ♦</b>	- <del>-</del>	25x45		Bluish-purple flowers; deciduous; high salt; native
Jerusalem thorn	Parkinsonia aculeata	8b-11	٥		15x25	IIII	Open-growth habit; small, spiny; young trees damaged at 18°F, older trees slightly more cold-tolerant; gets root rot on wet soil; prefers sandy soil; deciduous; high salt
Joewood	Jacquinia keyensis	10a-11	٥	<del>-</del>	6x15		Round, compact; wonderfully fragrant flowers, blue-gray bark; tolerant of dry soil; evergreen; high salt; native
Key lime	Citrus aurantifolia	10b-11	٥	- <del>\</del>	10–15		Fruit very acid; swallowtail butterfly host plant; evergreen; medium salt; wildlife value
Lancewood	Ocotea coriacea	10b-11	<b>♦ - ♦ •</b>	* ~	25		Small; evergreen; low salt; native
Lemon	Citrus limon	9a-11	••		15		Don't mulch around base; swallowtail butterfly host plant; evergreen; low salt; wildlife value
Lignum vitae	Guajacum sanctum	10b-11	<b>♦♦♦♦</b> − ♦	- <u>*</u>	20x30		Drought-tolerant, but responds well to moist conditions; blue flowers, attractive foliage; gnarled, white bark; evergreen; high salt; native
Loblolly bay	Gordonia lasianthus	8a-9b	<b>***</b>	<u>*</u>	15x60		Good for wet areas; evergreen; low salt; native
Loquat	Eriobotrya japonica	7–11	••		25–30		Edible orange fruit may be infested with Caribbean fruit fly; evergreen; high salt
Lychee	Litchi chinensis	10a-11	••	- <del>\</del>	35		Beautiful shade tree with delicious fruit; prefers somewhat acidic soil; evergreen; low salt
Madagascar olive	Noronhia emarginata	10b-11	٥		15x25		Excellent small tree for coastal areas; evergreen; high salt
Magnolia, southern	Magnolia grandiflora	8a-10a	<b>♦♦</b> − ◊	<u>*</u> ~	35x80		Hardy; large glossy leaves with fuzzy brown undersides, large showy white flowers, red 4-inch seed pods; drought-tolerant; evergreen; moderate salt; native
Mahogany	Swietenia mahagoni	10a-11	<b>♦♦</b> − ◊	<u></u>	35x50	Ш	Mahogany webworm often defoliates tree briefly; evergreen; moderate salt; native
Mango	Mangifera indica	10b-11	<b>♦♦</b> − ◊		60		Many varieties available; excellent fruit; butterfly host plant; may cause skin or food allergies; prefers sandy soil; evergreen; medium salt
Mangrove, black	Avicennia germinans	9b-11	***		25		Grows in warm coastal areas in brackish water; restrictions on pruning; evergreen; salt-tolerant; native
Mangrove, red	Rhizophora mangle	9b-11	***		15x40		Grows in warm coastal areas in brackish water; stilt-like roots; restrictions on pruning; evergreen; salt-tolerant; native
Mangrove, white	Laguncularia racemosa	9b-11	***	- <del>\</del> \	30		Grows in warm coastal areas; restrictions on pruning; evergreen; salt-tolerant; native
Maple, Florida sugar	Acer saccharum subsp. floridanum	8a-9a	<b>66 - 666</b>	<u>*</u>	15x30	IIIII	Squarish lobed leaves, bell-shaped flowers; former scientific name, A. barbatum; deciduous; low salt; native
Maple, red	Acer rubrum	8a-10a	<b>♦♦♦♦</b> − ◊	<u></u>	30x60	Ш	Excellent red fall color; red male flowers, winged fruit on female; likes moist to wet soil, tolerates acidic soil; deciduous; low salt; native
Maple, silver	Acer saccharinum	8a	<b>***</b>	<u>*</u>	25x50	IIIII	Underside of leaves silvery; deciduous; low salt; native
Mastic	Sideroxylon foetidissimum (= Mastichodendron foetidissimum)	9b-11	<b>○</b> - ♦ •		25x60		Female trees have messy fruit; wildlife food; evergreen; high salt; native
May haw	Crataegus aestivalis	8a–9a	<b>***</b>	- <u>*</u>	15x15	<b>1</b> 0000	Highly disease-resistant; spreading, dense symmetrical crown; deciduous; low salt; native
Mimusops	Manilkara roxburghiana	10a	<b>♦ - ♦ •</b>		30x20		Good for coastal landscapes; evergreen; high salt
Mulberry, red	Morus rubra	8a-10a	••	- <del>\</del>	30x70	IIIII	Berries stain; large showy leaves; may be damaged by freezes; deciduous; moderate salt; native
Oak, bluejack	Quercus incana	8a-9b	٥		20x35		Likes sandy soil; deciduous; low salt; native
Oak, Chapman	Quercus chapmanii	9a-10a	٥		20	10000	Shrubby; likes sandy soil; deciduous; moderate salt; native
Oak, diamond leaf	Quercus laurifolia	8a–10b	<b>66 - 666</b>		45x80	IIIII	Fast-growing, well-shaped; evergreen; low salt; native
Oak, laurel	Quercus hemisphaerica	8a-10a	<b>♦ - ♦ •</b>	<u>*</u>	40x80		Round crown; dislikes alkaline soil; small and short-lived; evergreen; low salt; native
Oak, live	Quercus virginiana	8a-11	<b>♦ - ♦ •</b>		40x60		Wind-resistant; long-lived; when mature, wider than tall; hardy to 0°F; evergreen; high salt; native
Oak, myrtle	Quercus myrtifolia	8a-10a	٥	- <del>\</del>	15x35		Good for dry, sandy sites; evergreen; moderate salt; native
Oak, overcup	Quercus lyrata	8a–8b	<b>**</b> - <b>***</b>	*	35x70		Likes acidic soil; deciduous; low salt; native
Oak, sand live	Quercus geminata	8a-10b	٥	* <del>*</del>	20x40		Smaller version of live oak; likes sandy soil; evergreen; high salt; native
Oak, Shumard	Quercus shumardii	8a–9a	<b>♦♦</b> − ◊	- <del>*</del> <del>*</del>	25x80		Handsome lobed leaves turn bright red in fall; does well in sandy or acidic soil; deciduous; low salt; native
SOIL MOISTURE 💧 Dry	♦♦ Moist ♦♦♦♦ Wet	LIGHT	⊤ - <mark>↓</mark> - Full Sun	Partial :	Sun 솓 .	Shade	GROWTH RATE DOWN Slow Medium Fast  * Soil moisture and light listed in order of plant preference  ** Mature size = width x height

TREE		Florida Hardiness	Soil Moisture	Light	Mature Size	Growth	
Common Name	Scientific Name	Range	Range*	Range*	(feet)**	Rate	Congress to 100 fact; large george 1 to 1.1/2 inches; tolorates brief floods; prefere maint woodland soil; desiduous; low soft; native
Oak, swamp chestnut	Quercus michauxii	8a–9a	<b>**</b>	- <u>-</u> -	35x80		Can grow to 100 feet; large acorns, 1 to 1 1/2 inches; tolerates brief floods; prefers moist woodland soil; deciduous; low salt; native
Oak, turkey	Quercus laevis	8a–9b	0-00	- <del>*</del>	20x50		Brilliant scarlet leaves in fall; does well in dry, sandy soil; deciduous; moderate salt; native
Oak, water	Quercus nigra	8a–9a	<b>66 - 666</b>	- <del>-</del>	50x80		Smooth, slightly furrowed bark; prefers moist sites, but can survive dry periods; evergreen; low salt; native
Oak, white	Quercus alba	8a–8b	••		50x70	0000	Well-drained acidic soil; bird food; deciduous; low salt; native
Oak, willow	Quercus phellos	8a–8b	<b>66 - 666</b>		35x75		Willow-like linear leaves; wildlife food; deciduous; high salt; native
Orange, sweet	Citrus sinensis	9b-11	••		15		Needs to be grafted for best fruit; swallowtail butterfly host plant; needs fertile soil; evergreen; low salt
Osage orange	Maclura pomifera	8a–9a	0		25x50		Nice ornamental with edible fruit; deciduous; moderate salt
Paradise tree	Simarouba glauca	9b-11	••	<b>*</b>	35		New red foliage, attractive compound leaves, yellow spring flowers; wildlife food; evergreen; moderate salt; native
Peach and nectarine	Prunus persica	8a–8b	••		12–20		Some varieties available for central and north Florida; needs cold; poisonous parts; vulnerable to pests; prefers well-drained soil; deciduous; low salt
Pear, Hood	Pyrus communis 'Hood'	8a–9a	<b>♦♦</b> − ◊		20	IIIII	Needs rich, well-drained soil; prefers pH 5.0 to 7.0; deciduous; low salt
Pecan	Carya illinoinensis	8a–9b	٥		50		Prefers well-drained soil; deciduous; low salt
Persimmon, Japanese	Diospyros kaki	8a-10b	••		25		Many varieties available; only female produces fruit; deciduous; medium salt
Pigeon plum	Coccoloba diversifolia	10a-11	<b>♦ - ••</b>	<u></u>	15x30	IIII	Attractive bark, variable leaf shape and size, edible purple fruit, white spring flowers; evergreen; high salt; native
Pine, loblolly	Pinus taeda	8a–9b	<b>♦♦♦♦</b> − ♦		25x100	Ш	Prefers wetter areas; evergreen; low salt; native
Pine, long-leaf	Pinus palustris	8a-10a	<b>○</b> - <b>♦ ♦</b>		35x90		Slow-growing; long needles, very large cones; prefers sandy, dry sites; evergreen; low salt; native
Pine, sand	Pinus clausa	8a-10a	٥	<u></u>	25x30		Smaller pine; short needles, small cones; prefers well-drained, sandy sites; evergreen; high salt; native
Pine, slash	Pinus elliottii	8a-10a	<b>♦ - ••</b>	- <del>\</del>	25x120	IIIII	Intolerant of root compaction or grade changes; needs little fertilizing; prefers acidic sandy soil; evergreen; moderate salt; native
Pine, South Florida slash	Pinus elliottii var. densa	10a-11	<b>♦ - ♦ •</b>		25x100	Ш	Intolerant of grade changes, traffic above root system; needs little or no fertilizing; prefers acidic, sandy soil; evergreen; moderate salt; native
Pine, spruce	Pinus glabra	8a–8b	<b>**</b> - <b>***</b>	-—	25x60	IIII	Long, narrow crown; cones, 15 to 25 inches; dark gray bark; does poorly in south Florida; evergreen; low salt; native
Pink-and-white shower	Cassia javanica	10a	٥	<del>-</del>	25x40	Ш	Very showy blooms; deciduous; moderate salt
Pitch apple	Clusia rosea	10a-11	•• - ◊	<u>*</u> ~	15x25		Leathery, tough leaves, showy pink and white spring flowers; evergreen; high salt; native
Plum, Chickasaw	Prunus angustifolia	8a-9a	••	* *	15x25		Early bloomer with fragrant white flowers; deciduous; high salt; native
Plum, flatwoods	Prunus umbellata	9a-9b	••	*	10x25		White flowers bloom before leaves appear; crooked trunk, purple fruit; deciduous; low salt; native
Pond apple	Annona glabra	10a-11	<b>***</b>		15x30		Dense, upturned branches, apple-shaped fall fruits; prefers wet or swampy sites; deciduous; moderate salt; native
Red bay	Persea borbonia	8a-11	•• - ◊	* *	35x50		Fragrant leaves, good in cooking; lower leaf surface grayish white; prefers sandy, acidic, moist sites; evergreen; high salt; wildlife value; native
Red buckeye	Aesculus pavia	8a-9a	<b>** - ***</b>	- <u>*</u>	15–25		Seeds poisonous; red flowers attract hummingbirds; wildlife value; deciduous; low salt; native
Red stopper	Eugenia rhombea	9b-11	<b>♦ - ♦ •</b>	<u> </u>	10x20		Endangered; evergreen; moderate salt; native
Redberry stopper	Eugenia confusa	10a-11	<b>♦ - ♦ •</b>	*	10x30		Evergreen; high salt; native
Redbud	Cercis canadensis	8a-9b	•• - ◊	* *	15x25		Purple spring flowers, heart-shaped leaves; deciduous; low salt; native
Royal poinciana	Delonix regia	10a-11	٥		50x50	Ш	Large spreading tree, brilliant flowers, messy; subject to freeze damage; deciduous; moderate salt
Sassafras	Sassafras albidum	8a-9a	٥	<u></u>	20x45		Different-shaped leaves; bark smells like root beer; deciduous; low salt; native
Satinleaf	Chrysophyllum oliviforme	10b-11	<b>♦♦</b> − ◊		15x40		Dark glossy green leaves with bronzy fuzz on bottom side; subject to freeze damage; evergreen; moderate salt; native
Seagrape	Coccoloba uvifera	9b-11	<b>♦ - ♦ ♦</b>	- <u>\</u> ' <u>\</u> '-	25x30		Edible fruits used for jelly; broad, spreading seaside plant; dinner plate-sized leaves; subject to freeze damage; evergreen; wildlife value; high salt; native
Silk bay	Persea humilis	9a-9b	٥		30		Black bark; likes sandy soil; evergreen; moderate salt; native
Sour gum	Nyssa sylvatica	8a-9a	<b>***</b>	<del>-</del>	80		Likes wet sites and acidic soil; deciduous; low salt; native

GROWTH RATE | []]] Slow | Medium | Fast

SOIL MOISTURE \( \rightarrow Dry \) \( \limin Moist \) \( \limin Wet \)

LIGHT

Full Sun

Partial Sun

Shade

\* Soil moisture and light listed in order of plant preference \*\* Mature size = width x height

#### TREES Florida Soil Mature Moisture Light Size Growth **Common Name** Scientific Name Comments Range\* (feet)\*\* Range Range\* Annona muricata 10b-11 44 15x25 Grows in warmest parts of Florida; edible fruit; evergreen; moderate salt Soursop 8a-8b Sourwood Oxydendrum arboreum **66** – () 15x50 Fragrant white bell-shaped flowers in spring and summer; gray bark has touch of red; deciduous; moderate salt; native Southern catalpa or Catalpa bignonioides 8b-9b 35x40 Large, velvet, heart-shaped leaves; abundant clusters of slightly fragrant bell-shaped flowers, white with orange stripes and purple spots; Indian bean fruit, 6- to 12-inch capsules; deciduous; low salt; native 44 - 4444 Malus angustifolia 8a-8b 25x25 Southern crabapple Shrub or small thorny tree; fragrant pink spring flowers, sour fruit; wildlife value; deciduous; low salt; native 0-000 10x15 Eugenia foetida 9b-11 Mildly fragrant flowers; evergreen; high salt; native Spanish stopper Spiny black olive **♦ ♦ ♦** Bucida spinosa 10b-11 15x25 A small, spiny cousin of the black olive; evergreen; wildlife value; moderate salt; native Chrysophyllum cainito 10a-11 $\Diamond$ 35 Star-apple No serious pests; evergreen; low salt 8a-10b 44 35x50 Best for central and north Florida; fruits; wildlife value; deciduous; low salt; native Sugarberry Celtis laevigata Crataegus flava 9a-9b 15 Fragrant flowers; wildlife value; deciduous; native Summer haw 8a-10b **66 - 666** 35x40 Swamp bay Persea palustris Hairy brown underleaf; likes moist areas; evergreen; high salt; native Magnolia virginiana 4444 - 44 60x90 Sweetbay 8a-9b Tall cylinder shape, white summer flowers; evergreen; low salt; native Liquidambar styraciflua 8a-9b **66-666-**( 80 Pyramidal shape, attractive fall color; spiny brown seeds, star-shaped leaves; fast-growing; does well in sandy or acidic soil; wildlife value; deciduous; low salt; native Sweetgum Sycamore Platanus occidentalis 8a-9a 70x100 Large leaves, exfoliating bark; tolerates wet and dry conditions; deciduous; moderate salt; native 44 Tamarindus indica 10a 50x65 **Tamarind** Extremely wind-resistant; evergreen; moderate salt Citrus x tangelo 9a-11 15 Swallowtail butterfly host plant; evergreen; low salt; native Tangelo 44 Citrus reticulata 9b-11 15 Swallowtail butterfly host plant; evergreen; low salt **Tangerine** Trumpet tree Tabebuia spp. 10a-11 10x25 Asymmetrical growth habit; corky bark, spectacular yellow spring flowers; deciduous; moderate salt Tulip tree Liriodendron tulipifera 9a-9b 44 35x90 Fragrant yellow flowers, oval crown; deciduous; low salt; native Velvet-apple, Mabolo Diospyros discolor 10a-11 25 No serious pests; evergreen; low salt 4444-44 25x100 Blue to purple fruit on long stalks; likes moist to wet sites; deciduous; moderate salt; native Water tupelo Nyssa aquatica 8a-8b White sapote Casimiroa edulis 10a-11 Prefers acidic soil; evergreen; medium salt 0-66 Wild dilly Manilkara bahamensis 10a-11 25 Small tree or shrub; drooping clusters of yellow flowers; evergreen; high salt; native **♦**♦ − ♦ Ш Wild lime Zanthoxylum fagara 9b-11 15x25 Has recurved thorns, lime-scented foliage; larval food plant for giant swallowtail butterfly; suffers from freeze damage; wildlife value; evergreen; high salt; native **♦♦** − ♦ 25x50 Wild tamarind Lysiloma latisiliqua 10b-11 Small weeping tree; deciduous; high salt; native **6666-66** Willow, weeping Salix babylonica 8a-9b 40x50 Aggressive roots — avoid sewer and water lines; deciduous; low salt 25x40 10a-11 Very fragrant flowers used in perfume; open-growth habit; evergreen; low salt Ylang-ylang Cananga odorata \* Soil moisture and light listed in order of plant preference GROWTH RATE Slow Medium Fast SOIL MOISTURE \( \rightarrow Dry \) \( \rightarrow Moist \) \( \rightarrow \limit{\rightarrow} \) \( \limit{Wet} \) Shade Full Sun Partial Sun \*\* Mature size = width x height



Sweetbay Magnolia virginiana



Tulip tree Liriodendron tulipifera



Elm, winged Ulmus alata



Maple, Florida sugar Acer saccharum subsp. floridanum

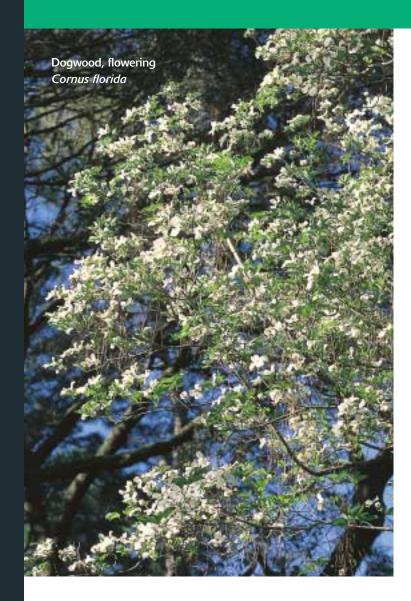


Zanthoxylum faqara



catalpa Catalpa

# TREES





Cypress, pond Taxadium ascendens



Plum, flatwoods
Prunus umbellata



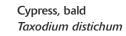
Jerusalem thorn tree Parkinsonia aculeata



Fiddlewood

Citharexylum fruticosum









Paradise tree Simarouba glauca

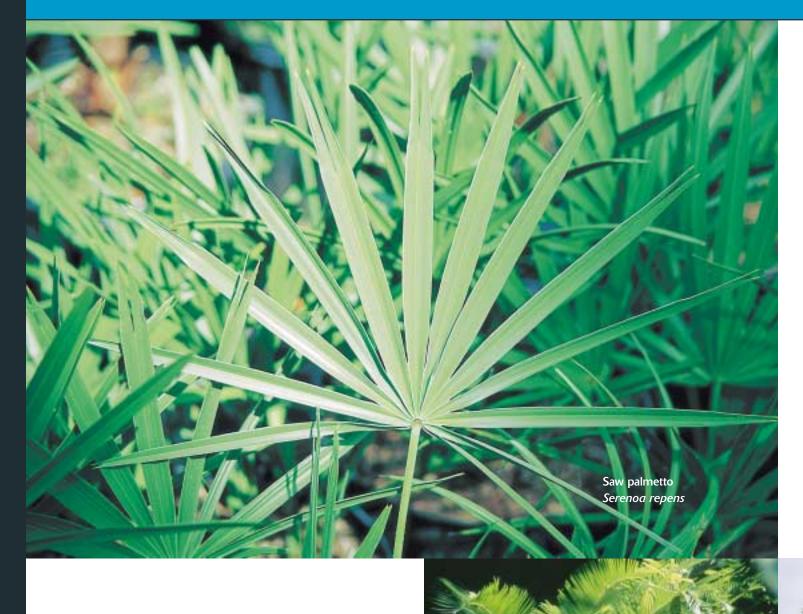


Oak, live Quercus virginiana

PALM-	LIKE	Florida Hardiness	Soil Moisture	Light	Mature Size	Growth	
Common Name	Scientific Name	Range	Range*	Range*	(feet)	Rate	Comments
Alexandra palm	Archontophoenix alexandrae	10b-11	••	* *	40		Also called king palm; new leaves may be bronze; doesn't transplant well; low salt
Bird-of-paradise tree	Strelitzia nicolai	9a-11	••		20	IIIII	Banana-like leaves easily tattered by wind; purple or white flowers; suckers will form large clump; likes acidic soil; low salt
Bismarck palm	Bismarckia nobilis	10a-11	<b>♦♦</b> - ◊	*	60	<b>1</b> 0000	Massive fan palm with large silver-blue leaves; slow to form trunk, moderate growth after trunk development; likes sandy soil; moderate salt
Buccaneer palm	Pseudophoenix sargentii	10b-11	<b>♦ - ••</b>	* *	10	0000	Also called cherry palm; bright red fruit; very slow-growing; endangered; likes sandy soil; high salt; native
Cabbage palm	Sabal palmetto	8a–11	0 - 6666	<u>*</u>	40	<b>1</b> 0000	State tree; also called sabal palm; very wind-resistant; fronds removed when transplanted; high salt; native
Canary Island date palm	Phoenix canariensis	9a-11	<b>♦ - ♦ • • • • • • • • • • • • • • • • • </b>	<u></u>	40	0000	Sharp spines; overwatering causes fungal disease; stressed plants invaded by palmetto weevil; susceptible to lethal yellowing; heavily damaged at 20°F; large; moderate salt
Cardboard palm	Zamia furfuracea	10a-11	<b>♦ - ♦ • • • • • • • • • • • • • • • • • </b>	<u>*</u>	4		Sturdy, slightly fuzzy stiff leaves; red seeds in female plants are poisonous; suffers heavy freeze damage
Cat palm	Chamaedorea cataractarum	10b-11	••		5		Moderate drought tolerance in shade; virtually trunkless; clumping palm; likes sandy soil; low salt
Chinese fan palm	Livistona chinensis	9a-11	•• - ◊	- <u>*</u>	25	<b>1</b> 0000	Long leaftip segments droop gracefully; spiny; slightly susceptible to lethal yellowing; survives 20°F with some leaf damage; other Livistona species available
Cliff date palm	Phoenix rupicola	10a-11	<b>♦ - ♦ •</b>		25	<b>1</b> 0000	Graceful, moderately sized palm; bright-green arching pinnate leaves; spiny; moderate salt
Clustering fishtail palm	Caryota mitis	10a-11	<b>♦♦</b> − ◊	<u></u>	18		Stems die after fruiting, are replaced by suckers; fruit contains irritating crystals; low salt
Coconut palm	Cocos nucifera	10b-11	<b>♦ - ♦ •</b>		60		"Malayan" and "Maypan" are only lethal-yellowing-resistant varieties; high salt
Cycad, Dioon	Dioon edule	8b-11	0		10	<b>1</b> 0000	Sharp, stiff, shiny, dark-green leaflets; long-lived; very slow-growing; trunk forms only after many years; low salt
Dwarf palmetto	Sabal minor	8a–10b	<b>○</b> - <b>♦ ♦</b>	*	6	<b>1</b> 0000	Shade-tolerant; widely adaptable to most soils; moderate salt; native
European fan palm	Chamaerops humilis	8a-11	0 - 66	* *	10	<b>1</b> 0000	Cold-tolerant to 12°F; spiny; much variation in leaf color; moderate salt
Florida royal palm	Roystonea regia	10a-11	••		80		Grows tall; has uniform trunk diameter; tolerant of wet conditions; moderate salt; native
Hurricane palm	Dictyosperma album	10b-11	••		30	<b>1</b> 0000	Also called princess palm; moderately susceptible to lethal yellowing; drying winds can burn foliage; likes sandy soil; moderate salt
King sago	Cycas revoluta	8b-11	<b>♦ - ♦ • • • • • • • • • • • • • • • • • </b>	<u>*</u>	8		Stiff, dark-green foliage; prone to magnesium deficiency; cold-tolerant to 10°F; small, confined root system; low salt
Lady palm	Rhapis excelsa	10a-11	••	<u></u>	7	<b>1</b> 0000	Palmate leaves yellow in sun; forms dense clusters; manganese deficiency on alkaline soil; moderate salt
Licuala palm	Licuala grandis	10b-11	••	- <u>*</u>	8	0000	Small; unique corrugated, circular leaves need protection from drying winds; likes wet, sandy soils; low salt
Macarthur palm	Ptychosperma macarthurii	10b-11	••	<del>*</del> <del>*</del>	25		A slender, multiple-trunked palm; small leaves and thin trunk; lethal-yellowing-resistant; low salt
Needle palm	Rhapidophyllum hystrix	8a-10b	<b>66 - 666</b>		5	0000	Trunkless; fiber-matted crown with sharp needle-like fibers; moderate salt
Parlor palm	Chamaedorea elegans	10b-11	••	<u>~</u>	6	<b>1</b> 0000	Densely clustering trunked palm; low salt
Paurotis palm	Acoelorrhaphe wrightii	9b-11	<b>***</b> - <b>**</b>	<u>*</u>	20	0000	Spiny, multi-trunked; manganese deficiency in alkaline soil; moderate salt; native
Pindo palm	Butia capitata	8a-10b	0	*	15	<b>1</b> 0000	Also called jelly palm; stiff, blue-green pinnate leaves; cold-hardy to 15°F; does best in central and north Florida; moderate salt
Ponytail palm	Nolina recurvata	10a-11	<b>♦ - ♦ •</b>	* *	10	<b>1</b> 0000	Tree-like fern; large swollen base; micro-nutrient deficiencies are common; low salt
Queen palm	Syagrus romanzoffiana	10a-11	••	*	40	IIII	Cold-sensitive; large, messy fruits; weak-rooted; poor wind resistance; prefers acidic soil or manganese deficiency develops; low salt
Queen sago	Cycas rumphii	9b-11	<b>♦ - ♦ ♦</b>	* *	15		Upright, soft, fern-like leaves; forms visible trunk; cold-tolerant to 28°F; moderate salt
Saw palmetto	Serenoa repens	8a-11	<b>⊘</b> - ♦♦♦♦	* *	6	<b>1</b> 0000	Very adaptable; striking silver-blue form available; berries; excellent drought tolerance; difficult to transplant; wildlife value; high salt; native
Scrub palmetto	Sabal etonia	8a-10b	0	- <u>*</u>	4		Occurs only on Florida peninsula, on drier soil than dwarf palmetto; likes sandy soil; moderate salt; native
Silver palm	Coccothrinax argentata	10b-11	<b>♦ - ♦ ♦</b>	* *	10	<b>1</b> 0000	Dark fruit, palmate leaves with striking silver undersides; endangered; likes sandy soil; wildlife value; high salt; native
Solitaire palm	Ptychosperma elegans	10b-11	<b>♦♦</b> − ◊	<u>*</u>	20	<b>1</b> 0000	Solitary, small, slender; lethal-yellowing-resistant; needs protection from cold and drying winds; low salt
Spanish bayonet	Yucca aloifolia	8a-11	0	- <u>\</u> -	15		Often planted to deter unwanted foot traffic; sharp-tipped leaves, edible flowers; good drought tolerance; needs good drainage; likes sandy soil; high salt
Thatch palm, Florida	Thrinax radiata	10b-11	0	* *	20	<b>1</b> 0000	Tolerant of high alkalinity; does best in full sun; high salt; native
Thatch palm, Key	Thrinax morrisii	10b-11	0	* -	20	<b>1</b> 0000	Tolerant of high alkalinity and coastal conditions; slow-growing; other species of Thrinax are cultivated; high salt; native
Triangle palm	Neodypsis decaryi	10b-11	<b>♦♦</b> − ◊	<u>*</u> - *	25		Blue-green leaves uniquely arranged in three planes; low salt
Washington palm	Washingtonia robusta	8a-11	<b>♦ - ••</b>		80	IIIII	Very tall, slender; spiny leaves damaged at 20°F; overwatering causes root rot; moderate salt
Wild date palm	Phoenix sylvestris	9a-11	0	-)-	40		Also called toddy palm or India date palm; variable blue-green cast to leaves; moderate salt
Windmill palm	Trachycarpus fortunei	8a-10b	Ó	* - <del></del>	25	10000	Very cold-hardy palm; does not thrive in hot, tropical conditions; soft, disorganized brown fiber on trunk; moderate salt
Yucca, spineless	Yucca elaphantipes	9b-11	<b>∆</b> − <b>♦♦</b>	- <u>*</u> - **	20		Harmless, soft leaftips, variegated forms available; moderate salt
SOIL MOISTURE O Dry		LIGH	21.4	Partial	Sun 🕿	Shade	GROWTH RATE



# PALM-LIKE





Cardboard palm Zamia furfuracea



European fan palm Chamaerops humilis



King sago

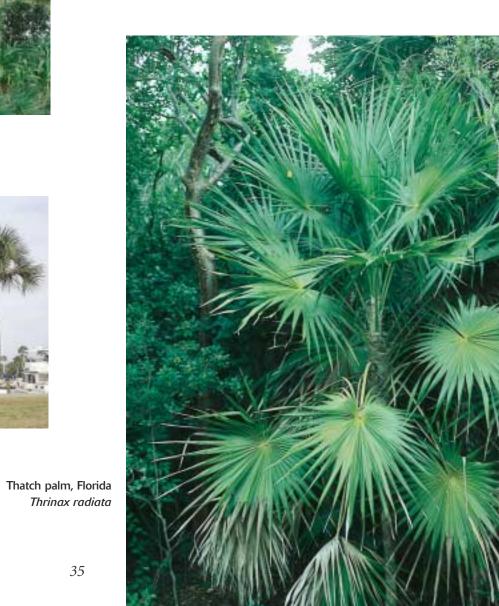








Pindo palm Butia capitata



Canary Island date palm Phoenix canariensis

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Common Name	Scientific Name	Florida Hardiness Range	Soil Moisture Range*	Light Range*	Mature Size (feet)	Growth Rate	Comments
Adam's needle	Yucca filamentosa	8a-9b	٥	- <del>\</del>	6	<b>1</b> 0000	Spine-tipped leaves with filamentous edges, white spring flowers; prefers sandy soil; evergreen; low salt; wildlife value; native
Alder, yellow	Turnera ulmifolia	10b-11	••		3	Ш	Shrub or groundcover; showy yellow flowers; evergreen; high salt
American beautyberry	Callicarpa americana	8a-11	•• - ◊	- <u>*</u>	6–9	IIII	Pink spring flowers, stunning purple berries; one variety has white berries; wildlife value; deciduous; low salt; native
Angel's-trumpet	Brugmansia x candida	10b-11	••	- <u>*</u>	14	IIIII	Showy fragrant flowers; poisonous; evergreen; low salt
Anise-tree	Illicium anisatum	8a-10b	••	- <u>*</u>	20		Needs good, moist soil; green spring flowers; evergreen; low salt
Apple, seven-year	Genipa clusiifolia (= Casasia clusiifolia)	10a-11	<b>♦♦</b> − ◊	- <u>*</u>	10		Fragrant white flowers, large glossy leaves; good seaside plant; prefers sandy soil; evergreen; high salt; native
Aralia, lacy-lady	Evodia suaveolens var. ridleyi	10b-11	••		6	IIII	Good hedge material; yellow summer flowers; evergreen; low salt
Arbor-vitae, Oriental	Platycladus orientalis	8a-10b	••	**	20		Can be small tree; evergreen; low salt
Arrow-wood	Viburnum dentatum	8a-8b	••	- <u>*</u>	10	IIII	Good hedge material; showy white flowers in spring and summer, blue-black fruit; tolerates a wide range of soil; deciduous; low salt; wildlife value; native
Azalea hybrids	Rhododendron spp.	8a–10a	••	- <u>*</u>	10		Showy spring and fall flowers, wide variety of colors; dwarf variety less than 3 feet tall; needs acidic soil; evergreen; low salt
Bahama coffee	Psychotria ligustrifolia	10b-11	••	<u> </u>	4	IIII	Rare white flowers in spring and summer; wildlife value; evergreen; moderate salt; native
Barberry, 'crimson pygmy'	Berberis thunbergii 'Atropurpurea Nana'	8a-9b	••	- <u>*</u>	4		Showy yellow spring flowers, spiny leaves, green and red foliage; deciduous; moderate salt
Barberry, wintergreen	Berberis julianae	8a-9b	••	- <u>*</u>	5	■0000	Spiny; yellow spring flowers; evergreen; moderate salt
Bay cedar	Suriana maritima	10b-11	٥	<del>-</del>	10		Good coastal plant; endangered; evergreen; high salt; native
Beach elder	Iva imbricata	9a-10b	٥	<del>-</del> <u>*</u> -	3	IIII	Perennial; fleshy leaves; both male and female flowers on plant; prefers sandy, alkaline soil; high salt; native
Black torch	Erithalis fruticosa	10a-11	٥	- <u>*</u>	8		Black fruit, white flowers; prefers sandy soil; rounded shape becomes dense in sun; evergreen; high salt; native
Blackberry, Brazos	Rubus cultivar Brazos	8a-9a	••	<del>-</del> <u>*</u> -	4	IIII	Sprawling, vining, thorny; white summer flowers; wildlife value; low salt
Blueberry	Vaccinium cultivars	8a-10b	••	<del>-</del>	8		Likes acidic soil; wildlife value; low salt; native
Blueberry, evergreen	Vaccinium darrowii	8a-11	٥		2	<b>1</b> 0000	Edible fruit, white spring flowers; spreads by runners; needs acidic soil; wildlife value; evergreen; low salt; native
Blueberry, highbush	Vaccinium cormybosum	8a-11	<b>♦♦</b> − ◊	<del>*</del>	10		Blueberry-like fruit in early fall, white spring flowers; likes acidic soil; wildlife value; evergreen; moderate salt; native
Blueberry, shiny	Vaccinium myrsinites	8a-11	•• - ◊	- <u>*</u>	2	■0000	Edible fruit, white or pink spring flowers; spreads by runners; needs acidic soil; wildlife value; evergreen; low salt; native
Bottlebrush, lemon	Callistemon citrinus	9a-11	••	<del>-</del>	20		Showy red flowers in spring; can become small tree; evergreen; moderate salt
Bottlebrush, stiff	Callistemon rigidus	9a-11	••	<del>-</del> <u>*</u> -	15		Showy red flowers in spring; can become small tree; evergreen; moderate salt
Bougainvillea, paper flower	Bougainvillea glabra	10b-11	<b>♦♦</b> − ◊	<del>-</del>	8	Ш	Thorny; very drought-tolerant; showy flowers in variety of colors; grows well in sandy soil; evergreen; high salt
Boxthorn	Severinia buxifolia	9a-10b	٥	<del>-</del> <u>*</u> -	6		Spiny; good hedge material; white spring flowers; evergreen; moderate salt
Buckthorn, tough	Sideroxylon tenax (= Bumelia tenax)	8b-9b	٥	<del>-</del>	20		Thorny; white spring flowers; prefers sandy soil; evergreen; high salt; native
Bush clock vine	Thunbergia erecta	10b-11	••	*	5		Can be hedge with pruning; purple or white flowers; evergreen; moderate salt
Butterfly-bush	Buddleja asiatica	9b	••	<del>-</del>	10		Showy fragrant flower clusters, variety of colors; blooms in winter and spring; wildlife value; evergreen; low salt
Buttonbush	Cephalanthus occidentalis	8a–10a	<b>***</b>	- <u>*</u>	15		Survives in standing water; white spring flowers; deciduous; low salt; native
Calamondin orange	x Citrofortunella microcarpa	10b-11	••		10–25		Needs well-drained soil; evergreen; low salt
Caper, Jamaican	Capparis cynophallophora	10b-11	•• - ◊	<del>-</del> <u>×</u> -	9	10000	Rusty leaf undersides; showy pink or white flowers in spring; grows on shellrock; evergreen; high salt; native
Caricature plant	Graptophyllum pictum	10b-11	••	<del>*</del>	5	Ш	Showy red flowers in spring, variety of leaf colors and shapes; vulnerable to nematodes; evergreen; low salt
Carolina silverbell	Halesia carolina	8a-9b	••	**	25		Flowering shrub for partial shade; yellow winter flowers; grows on lime areas; deciduous; low salt; native
Cassia, Bahama	Senna mexicana var. chapmanii	10a	<b>♦♦</b> − ◊		8	IIIII	Showy yellow flowers in fall and winter; evergreen; low salt; wildlife value; native
Century plant, maguey	Agave americana	9a-11	٥		6+		Spiny succulent; takes years to mature; yellow flower; blooms sporadically; very drought-tolerant; likes sandy soil; evergreen; high salt
SOIL MOISTURE O Dry	♦♦ Moist ♦♦♦♦ Wet	LIGHT	Γ - Full Sun	- <u></u> Partial	Sun 솓	Shade	GROWTH RATE []]]] Slow []] Medium    Fast * Soil moisture and light listed in order of plant preference

Common Name	Scientific Name	Florida Hardiness Range	Soil Moisture Range*	Light Range*	Mature Size (feet)	Growth Rate	Comments
Chapman's rhododendron	Rhododendron minus var. chapmanii	8a-9b	••	* ~	5	<b>1</b> 0000	Rare; needs acidic soil; evergreen; low salt; native
Chaste-tree	Vitex agnus-castus	8a-10b	••		12		Needs mulching and pruning; showy blue flowers in spring; deciduous; moderate salt
Chenille plant, red hot cattail	Acalypha hispida	10b-11	••		5	IIIII	Long pendulous spikes, white or red flowers in summer and fall; evergreen; low salt
Chinese spiraea	Spiraea cantoniensis	8a-9b	••		5		Showy flowering shrub; does best in Panhandle; white spring flowers; deciduous; low salt
Christmas berry	Lycium carolinianum	8a-11	٥	*	7		Grows in salt marshes; bright red berries, unusual foliage, lavender or white flowers in summer and fall; evergreen; high salt; native
Cleyera	Ternstroemia gymnanthera	10a-11	••	<b>~</b>	15		Flowering shrub, small tree, or hedge; evergreen; low salt
Cocoplum	Chrysobalanus icaco	10b-11	••		20		Good hedge material; coastal plant; "red tip" inland variety not salt-tolerant; dark fruit, small white flowers; evergreen; moderate salt; native
Coontie	Zamia pumila	8b-11	•• - ◊	<i>△</i> <del>*</del>	2	0000	Grows on shell areas; wildlife value; evergreen; high salt; native
Copperleaf	Acalypha wilkesiana	10b-11	••		8	IIIII	Good coastal plant; white flowers in spring and fall, edible purple fruit; evergreen; moderate salt
Coral bean	Erythrina herbacea	8a-11	•• - ◊	*	15		Colorful fruits, poisonous beans, red spring flowers; thorny; wildlife value; evergreen; moderate salt; native
Crabapple	Malus angustifolia	8a-9b	<b>♦♦</b> - ◊		20		Pretty pink flowers followed by edible fruit; low salt; native
Crape jasmine	Tabernaemontana divaricata	10b-11	••	*	7		Showy fragrant white flowers in spring and fall; evergreen; moderate salt
Crape myrtle	Lagerstroemia indica	8a-10b	<b>♦♦</b> - ◊		20		Small tree; attractive bark, showy flowers in variety of colors; blooms in spring, summer and fall; deciduous; low salt
Croton	Codiaeum variegatum	10a-11	••	*	8	0000	Showy multicolored leaves; sap is an irritant and stains clothes; evergreen; moderate salt
Daisy, African bush	Euryops chrysanthemoides	10b-11	••		3		Showy yellow flowers; evergreen; low salt
Dracaena	Dracaena spp.	9a-11	•• - ◊		2–15		Can be tree, shrub or herbaceous perennial; white, yellow and green flowers in spring; evergreen; low salt
Eastern gamagrass	Tripsacum dactyloides	8a-11	<b>♦♦♦♦</b> − ◊		8		Large bunchgrass; perennial; interesting flowers and fruit; wildlife value; moderate salt; native
Elderberry	Sambucus nigra subsp. canadensis	8a-11	***		15	IIIII	Flowers and fruit edible; white spring flowers; wildlife value; evergreen; low salt; native
Fetterbush, swamp doghobble	Leucothoe racemosa	8a-9b	****	<u></u>	6		Likes wet; evergreen; native
Fiddlewood	Citharexylum spinosum (= C. fruticosum)	10b-11	•• - ◊	<u></u>	25	0000	Small fragrant white flowers, orange fruit, glossy leaves; evergreen; moderate salt; native
Firebush	Hamelia patens	10a-11	••	<del>*</del> <del>*</del>	3–10	IIIII	Reddish tubular flowers; winter dieback in cold areas; grows on shell areas; evergreen; moderate salt; native
Firecracker plant	Russelia equisetiformis	10b-11	•• - ◊		4		Showy red flowers; evergreen; high salt
Firespike	Odontonema tubiforme	9a-9b	••		6	IIIII	Perennial; large red flower spikes in fall; needs fertile soil; low salt
Firethorn, red	Pyracantha coccinea	8a–10a	••		10–15		Good hedge material; white flowers in spring and summer, showy orange-red berries; thorny; subject to fire blight; evergreen; moderate salt
Florida boxwood	Schaefferia frutescens	10b-11	٥	- <u>*</u>	25	10000	Good hedge material; rare species; likes alkaline soil; evergreen; moderate salt; native
Florida flame azalea	Rhododendron austrinum	8a-9b	••	- <u>*</u>	6		Showy yellow or orange flowers appear in spring before leaves; prefers acidic soil; deciduous; low salt; native
Florida gamagrass	Tripsacum floridanum	10a-11	♦♦♦♦ - ◊		6		Perennial; rare; moderate salt; native
Florida-anise	Illicium floridanum	8a–10a	<b>***</b> - <b>**</b>	<u></u>	15		Distinctive red or purple flowers in spring, fragrant foliage; grows on seepage slopes; threatened; evergreen; low salt; native
French hydrangea	Hydrangea macrophylla	8a-9b	••	<u></u>	5	IIIII	Needs pruning; flowers change color with soil pH; needs fertile soil, likes acidic soil; deciduous; low salt
Gallberry	llex glabra	8a–10a	••	<u></u>	8	0000	White spring flowers, black fruit; high drought tolerance; likes acidic soil; evergreen; moderate salt; wildlife value; native
Garberia	Garberia heterophylla	9a-10a	٥		6		Showy fall flowers in pink or purple; prefers acidic, sandy soil; evergreen; wildlife value; native
Gardenia, Cape jasmine	Gardenia augusta	8a–10a	••		6	10000	Very fragrant, showy white flowers in spring; needs rich acid soil with mulch and good drainage; evergreen; low salt
Glorybush	Tibouchina urvilleana	9b-10b	••	<u></u>	10		Purple flowers in spring and fall; prefers well-drained acid soil of central Florida; evergreen; low salt
Glossy abelia	Abelia x grandiflora (A. chinensis x A. uniflora)	8a–9b	••		6	11100	Variety of flower colors in spring; prefers loamy, well-drained clay soil of northwestern Florida; low salt
SOIL MOISTURE & Dry	♦♦ Moist ♦♦♦♦ Wet	LIGHT	Γ - Full Sun	- <u></u> Partial	Sun 🔼	Shade	GROWTH RATE

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SOIL MOISTURE O Dry 66 Moist 666 Wet

Common Name	Scientific Name	Florida Hardiness Range	Soil Moisture Range*	Light Range*	Mature Size (feet)	Growth Rate	Comments
Golden dewdrop	Duranta evecta (= Duranta repens)	9b-11	<b>♦♦</b> − ◊	* *	15	<b>III</b> 00	Small blue or white flowers in spring and fall, showy golden fruit; poisonous; evergreen; moderate salt; wildlife value
Hawthorn, Indian	Rhaphiolepis indica	8a–11	••	- <u>*</u>	5	0000	Showy pinkish-white flowers in spring and winter; high drought tolerance; evergreen; moderate salt
Hercules'-club	Zanthoxylum clava-herculis	8a–10b	<b>♦♦</b> − ◊		30		Thorns grow out of trunk; white flowers in spring; deciduous; moderate salt; wildlife value; native
Hibiscus	Hibiscus rosa-sinensis	10a-11	••		7	Ш	Showy flowers, many varieties; needs very fertile soil; evergreen; moderate salt
Holly, Burford or Chinese	Ilex cornuta 'Burford'	8a	••		5–20		Shiny leaves with spines; good hedge material; white spring flowers, red berries; varieties "Burford" to 20 feet, "Rotunda" just 5 feet tall; evergreen; moderate salt
Holly, dwarf yaupon	llex vomitoria 'Nana'	8a–10a	<b>♦♦</b> − ◊	- <u>*</u> -	5		Many varieties with varying sizes and structures; white flowers in spring and summer; female plants have berries; evergreen; low salt; native
Holly, Japanese	llex crenata	8a-9b	••		6	10000	Good hedge material; prefers acidic soil; evergreen; low salt
Honeysuckle, cape	Tecomaria capensis	10b-11	••		6		Needs good drainage; needs frequent pruning to make a shrub; yellow, orange and red flowers in summer and fall; evergreen; moderate salt
Inkberry	Scaevola plumieri	10a-11	٥		4	10000	Groundcover for dunes; evergreen; high salt; native
Jasmine, downy	Jasminum multiflorum	10b-11	••	<del>*</del>	5		Shrub or vine; white flowers in spring and fall; evergreen; low salt
Jasmine, primrose	Jasminum mesnyi	8a–10a	••		8		Showy yellow flowers in spring and winter; sprawling shrub for central and north Florida; evergreen; low salt
Juniper, Chinese	Juniperus chinensis	8a–10b	••		6		Prefers fertile soil; evergreen; moderate salt
Kumquat	Annona muricata	10a	••		10	10000	Thorny shrub; low salt
Lady-of-the-night	Brunfelsia americana	10b-11	••		10		Showy white flower in spring and fall; evergreen; moderate salt
Large flowered scrub mint	Conradina grandiflora	10a-10b	٥	<del>-</del> <u>*</u> -	3	Ш	Very drought-tolerant; blue flowers in spring and fall attract insects; needs sandy soil; evergreen; high salt; native
Licuala, spiny	Licuala spinosa	10b-11	••		12	0000	Spiny palm; evergreen; low salt
Lyonia, rusty	Lyonia ferruginea	8a–10b	٥		15	10000	Rusty pubescence on leaves; clusters of small urn-shaped white flowers in spring attract insects; likes acidic soil; evergreen; low salt; native
Lyonia, shiny	Lyonia lucida	8a	<b>**</b> - <b>***</b>		6		Grows in swamps; can sucker; pink urn-shaped flowers in spring attract insects; likes acidic soil; evergreen; moderate salt; native
Maidenbush	Savia bahamensis	10b-11	٥	<del>-</del> <u>*</u> -	9	0000	Good hedge material; evergreen; high salt; native
Marlberry	Ardisia escallonioides	10a-11	<b>***</b>	<i>←</i>	10–20		Fragrant white flowers in spring and fall, black fruits; tolerates alkaline soil; wildlife value; evergreen; high salt; native
Mock orange	Philadelphus coronarius	8a-9b	••	- <u>*</u> -	12	Ш	Fragrant white spring flowers, exfoliating orange to red-brown bark; needs pruning; deciduous; low salt
Myrsine	Rapanea punctata	8b-11	••	<i>△ ×</i>	15		Shrubby tree; small white spring flowers, small fruits; does well in coastal counties; wildlife value; evergreen; high salt; native
Natal plum	Carissa macrocarpa	10b-11	٥		10		Spiny hedge plant; tolerates seasides; fragrant white flowers in spring and fall; large fruit, good for cooking; evergreen; high salt
Night-blooming jessamine	Cestrum nocturnum	10a-11	••		10		Yellow flowers at night in spring and summer; white fruits and foliage poisonous; evergreen; moderate salt
Oakleaf hydrangea	Hydrangea quercifolia	8a-9b	<b>○</b> - <b>●●</b>		8	Ш	Large panicles of white spring flowers; fall foliage color; prefers acidic soil; deciduous; low salt; native
Oleander	Nerium oleander	8a–11	٥		15		Highly poisonous; drought-tolerant; many flower colors; blooms in spring and fall; wildlife value; evergreen; high salt
Oregon grape-holly, Chinese hahonia	Mahonia fortunei	8a–9b	••	*	5		Spiny; good hedge material; blue-black fruit, yellow fall flowers; winter foliage turns bronze or purple; evergreen; moderate salt
Peregrina	Jatropha integerrima	10b-11	••	<del>-</del> <del>*</del>	8		Showy red flowers; poisonous; evergreen; moderate salt
Philodendron	Philodendron speciosum	10a-11	••	<u></u>	10	Ш	Enormous leaves; irritant; requires moist, sandy loam soil and shade; evergreen; low salt
Philodendron, giant-leaf	Philodendron giganteum	10a-11	••	2	10+	Ш	Enormous leaves; irritant; requires moist, sandy loam soil and shade; evergreen; low salt
Photinia, red-tip	Photinia glabra	8a-9b	••	- <del>\</del> -	8		Good hedge material; white spring flowers; new red growth; prefers rich soil, chilly winters; evergreen; low salt
Pineapple guava	Feijoa sellowiana	9a-11	<b>♦♦</b> − ◊	<u></u>	14		Can be hedge; white or red spring flowers; petals edible, fruit delicious; evergreen; moderate salt
Pinxter azalea	Rhododendron canescens	8a–10a	••	*	10		Showy fragrant spring flowers appear before leaves in spring; needs acidic soil; deciduous; low salt; native
Pipestem	Agarista populifolia	8b–9a	<b>**</b> - <b>***</b>		10	0000	Showy white flowers in spring; likes acidic soil; evergreen; native
			<u> </u>				

Partial Sun

Shade

LIGHT

Full Sun

\* Soil moisture and light listed in order of plant preference

Common Name	Scientific Name	Florida Hardiness Range	Soil Moisture Range*	Light Range*	Mature Size (feet)	Growth Rate	Comments
Plumbago	Plumbago auriculata	10a-11	••		5	11100	Showy fragrant blue or white flowers in spring and fall; irritant; mineral deficiency on alkaline soil; evergreen; moderate salt
Podocarpus, yew	Podocarpus macrophyllus	8a–11	••	* *	35		Invasive; gets scales and sooty mold; needs pruning; evergreen; moderate salt
Poinsettia	Poinsettia pulcherrima	9b-11	••		12		Irritant; gets leggy; red, pink or white blooms in winter; needs well-drained, fertile soil; evergreen; low salt
Pomegranate	Punica granatum	8a	٥	-	15		Does better in low humidity; may sucker; needs well-drained soil, pH 5.5 to 7.0; deciduous; low salt
Red ixora	Ixora coccinea	10b-11	••		5		Showy flowers in yellow, red or pink; requires well-drained, fertile soil, likes acidic soil; evergreen; moderate salt
Red powderpuff	Calliandra haematocephala	10a-11	<b>♦♦</b> − ◊		15		Red or white flowers in winter; likes sandy soil; evergreen; low salt
Rose, Cherokee	Rosa laevigata	8a–10b	••		10+		Thorny stems, large fragrant spring flowers in pink or white; climbs; requires moist, well-drained soil, likes sandy soil; evergreen; low salt
Rose-of-Sharon	Hibiscus syriacus	8a–9b	••	<del>-</del>	10	IIIII	Many colors; blooms in spring and fall; needs very fertile soil; deciduous; low salt
Rosemary	Rosmarinus officinalis	9a-11	٥		3		Aromatic; high salt
Sasanqua camellia	Camellia sasanqua	8a–9b	••		15		Not finicky about drainage; showy fragrant flowers in fall; likes acidic soil; evergreen; low salt
Saw palmetto	Serenoa repens	8a–11	<b>♦♦♦♦</b> − ♦	<u></u>	8	<b>1</b> 0000	Slow-growing; doesn't transplant; tolerates severe pruning; very drought-tolerant; wildlife value; evergreen; high salt; native
Schefflera, dwarf	Schefflera arboricola	10a-11	٥	<i>△</i>	10	IIIII	Evergreen; moderate salt
Sea lavender	Argusia gnaphalodes	9b-11	٥	- <del>\</del>	6	<b>1</b> 0000	Good coastal plant; endangered; white flowers in winter and spring, silvery-gray foliage; evergreen; high salt; native
Seagrape	Coccoloba uvifera	10b-11	•• - ◊		20		Good coastal plant; edible fruit; dinner plate-sized leaves; spreading; evergreen; high salt; wildlife value; native
Silver buttonwood	Conocarpus erectus var. sericeus	10b-11	<b>***</b>	- <del>\</del>	35		Good coastal plant; silver-blue or green foliage, purple or white flowers; evergreen; high salt; native
Silverthorn	Elaeagnus pungens	8a	٥		18	Ш	Thorny; fragrant brown flowers; doesn't like alkaline soil; evergreen; high salt
Simpson stopper	Myrcianthes fragrans	10a-11	٥	* *	25		Interesting bark, white flowers; wildlife value; evergreen; high salt; native
Snail seed	Cocculus laurifolius	9a-10b	••	*	13		Thorny hedge or shrub; tiny yellow flowers in spring; poisonous leaves; evergreen; low salt
Snow bush	Breynia disticha	10b-11	••	*	6		White spring flowers; evergreen; low salt
Snowberry	Chiococca alba	9b-11	•• - ◊		10		Grows in hammocks, woods and shell areas; fragrant yellow flowers; evergreen; high salt; native
Spanish bayonet	Yucca aloifolia	8a-10b	٥		14		Spine-tipped leaves; white flowers in spring and fall; excellent drought tolerance; likes sandy soil; wildlife value; evergreen; high salt
Sparkleberry	Vaccinium arboreum	8a	•• - ◊	* *	15		Seedy, blueberry-like fruit in early fall; likes acidic soil; wildlife value; deciduous; low salt; native
Spicewood	Calyptranthes pallens	10b-11	٥	*	15		Rare south Florida plant; white flowers in spring and fall; good hedge material; evergreen; moderate salt; native
St. John's wort	Hypericum reductum	8a-9b	٥		1		Likes moist, sandy soil; evergreen
Swamp mallow, red hibiscus	Hibiscus coccineus	8a-10b	<b>***</b> - <b>**</b>	* *	6–8		Perennial; large red flowers in spring and summer; likes wet soil; low salt; native
Sweet olive	Osmanthus fragrans	8a–9b	••		20		Intensely fragrant white flowers in fall and winter; likes sandy soil; evergreen; low salt
Sweet pepperbush	Clethra alnifolia	8a-9a	<b>6666 - 66</b>	<u></u>	20	<b>1</b> 0000	Good hedge plant; showy white flowers in spring and summer; likes acidic soil; wildlife value; deciduous; low salt; native
Sweet shrub	Calycanthus floridus	8a–10a	••	△ 📥	10		Showy fragrant flowers, aromatic leaves; deciduous; low salt; native
Sweetspire, Virginia	Itea virginica	8a–11	<b>66 - 666</b>	<u></u>	7		Can sucker; fall color; tassels of tiny fragrant white flowers in spring; evergreen; low salt; native
Tallow-wood	Ximenia americana	9a-10b	٥		8		Prefers sandy soil; evergreen; low salt; native
Tetrazygia	Tetrazygia bicolor	10b-11	٥	<u></u>	10		Good hedge material; white spring flowers and attractive foliage; evergreen; moderate salt; native
Texas sage	Leucophyllum frutescens	8a-10b	••		5		Hedge material; gray-green foliage, lavender spring flowers; will die if overwatered; evergreen; moderate salt
Thryallis	Galphimia gracilis	10b-11	••	<u></u>	5		Showy yellow flowers in summer and fall; evergreen; moderate salt
Thunberg spiraea	Spiraea thunbergii	8a–8b	••		5		White winter flowers; requires well-drained, loamy soil; evergreen; low salt
Thyme	Thymus vulgaris	8a-11	٥		1.5		Plant in fall, winter or spring and re-plant every 3 or 4 years; low salt
SOIL MOISTURE O Dry	♦♦ Moist ♦♦♦♦ Wet	LIGHT	Γ - <mark>├</mark> - Full Sun	Partial	Sun 솓	Shade	GROWTH RATE []]]] Slow []] Medium   Fast * Soil moisture and light listed in order of plant preference

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		Florida	Soil		Mature		
Common Name	Scientific Name	Hardiness Range	Moisture Range*	Light Range*	Size (feet)	Growth Rate	Comments
Ti plant	Cordyline terminalis	10b-11	<b>66</b>	*	5		Showy fragrant white flowers in fall; shrub or tree; evergreen; moderate salt
Tibouchina	Tibouchina clavata	10b-11	••	<del>-</del>	6	Ш	Showy purple flowers in spring and fall; hairy leaves; straggly growth; evergreen; low salt
Titi	Cyrilla racemiflora	8a-9a	<b>***</b>	* *	20		Pendulous white flowers in spring and summer attract insects; likes acidic soil; evergreen; native
Torchwood	Amyris elemifera	10b-11	<b>♦♦</b> − ◊	<del>*</del>	15		White flowers; wildlife value; evergreen; high salt; native
Tropical sea oxeye daisy	Borrichia arborescens	10a-11	٥		3		Good coastal plant; showy yellow flowers in spring and summer; evergreen; high salt; native
Tropical snowflake	Trevesia palmata	10b	••	*	15		New leaves resemble snowflakes; white spring flowers; needs fertile, slightly acidic soil; evergreen; low salt
Turk's-cap	Malvaviscus arboreus	9a-11	٥		7	IIII	Red flowers in spring and fall; wildlife value; evergreen; low salt
Two-winged silverbell	Halesia diptera	8a–8b	••		30	Ш	Showy white flowers in fall; deciduous; native
Varnish leaf	Dodonaea viscosa	9a-11	<b>♦♦</b> − ◊	*	6		Shiny leaves, white spring flowers; showy, winged fruit; evergreen; high salt; native
Viburnum, sandankwa	Viburnum suspensum	8a–10b	••	*	6		Hedge material; white or pink flowers in spring; vulnerable to nematodes; evergreen; low salt
Viburnum, sweet	Viburnum odoratissimum	8a–10b	••	*	8		Hedge material; white spring flowers; evergreen; low salt
Viburnum, Walter's	Viburnum obovatum	8a–10a	<b>***</b>	*	20	Ш	Informal hedges, may form thickets; upright or spreading forms; showy white flowers in spring, red to black edible berries; wildlife value; deciduous; low salt; native
Wax myrtle, southern bayberry	Myrica cerifera	8a-11	<b>***</b>	*	20		Good hedge material in full sun; can root-sucker; berries; likes moisture; wildlife value; evergreen; high salt; native
White indigo berry	Randia aculeata	10a-11	<b>♦♦</b> − ◊	<del>-</del>	8		Spiny, dense plant; fragrant small white flowers; female has white berries; evergreen; high salt; native
Wild coffee	Psychotria nervosa	10a	••	<u>~</u> <u>*</u>	5	IIII	Needs moisture; white flowers in spring and summer, small fruits; evergreen; wildlife value; moderate salt; native
Wild hydrangea	Hydrangea arborescens	8a	••	<i>△ ×</i>	5		Rare; low salt
Wild rosemary	Conradina canescens	9a-9b	٥		4		Aromatic foliage; small lavender flowers in spring; excellent drought tolerance; likes sandy soil; wildlife value; evergreen; moderate salt; native
Wild sage, buttonsage	Lantana involucrata	10a	٥	<del>-</del>	6	Ш	White flowers; needs sandy soil; wildlife value; evergreen; moderate salt; native
Yellow anise	Illicium parviflorum	9a-9b	***	- <u>*</u>	15		Distinctive yellow flowers in spring, fragrant foliage; rare; evergreen; low salt; native
Yellow necklace pod	Sophora tomentosa var. truncata	10a-11	٥	<del>-</del>	8		Showy yellow flowers; poisonous; evergreen; high salt; native
Yesterday-today-and-tomorrow,	Brunfelsia grandiflora	10b-11	••		8		Showy purple flowers with white centers; evergreen; moderate salt
morning-noon-and-night							

SOIL MOISTURE O Dry 66 Moist 6666 Wet

LIGHT

Full Sun

Partial Sun

Shade

GROWTH RATE []]]]] Slow []] Medium [] Fast



\* Soil moisture and light listed in order of plant preference



American beautyberry Callicarpa americana

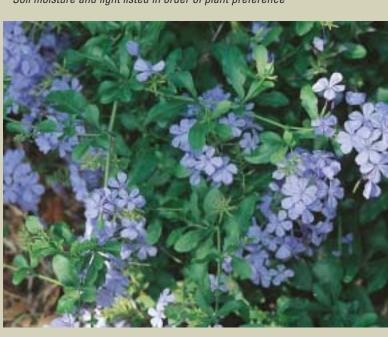


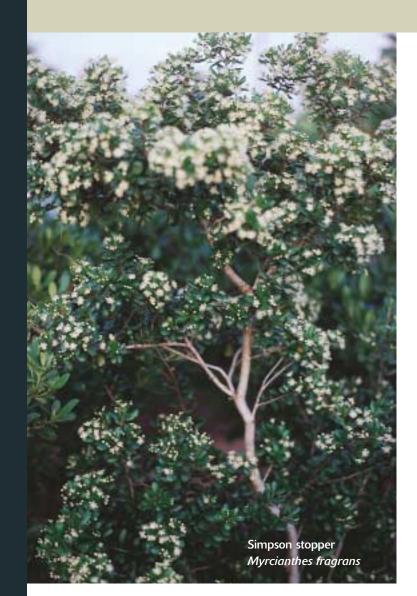
Sweet olive Osmanthus fragrans



Florida-anise Illicium floridanum

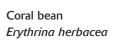
Plumbago Plumbago auriculata







Seagrape Coccoloba uvifera





Florida flame azalea Rhododendron austrinum



Gallberry llex glabra



Firebush Hamelia patens



Firecracker plant
Ruesselia equisetiformis



Ardisia escallonioides





GROUN	NDCOVERS	Florida Hardiness	Soil Moisture	Light	Mature Size	Growth	
Common Name	Scientific Name	Range	Range*	Range*	(feet)	Rate	Comments
Adam's needle	Yucca filamentosa	8a-9b	٥		3		Leaf margins fray; large showy white flower spikes every few years; depends on yucca moth for pollination; likes sandy soil; moderate salt; native
Agapanthus	Agapanthus africanus	9a-11	<b>♦ - • • •</b>	- <u>*</u>	2		Herbaceous; short-lived in south Florida; showy blue and white flowers; low salt
Aloe	Aloe vera (= A. barbadensis)	10a-11	٥	<b>*</b>	1.5	<b>1</b> 0000	Succulent, fleshy leaves; yellow winter flowers; sap soothes burns and cuts; looks good in rock gardens; high salt
Artillery plant	Pilea microphylla	10b-11	<b>♦♦♦♦</b> − ♦	<i>←</i>	1		Herbaceous; 'Stoplight' most colorful cultivar; can escape cultivation; low salt; native
Asparagus-fern, 'Myers'	Asparagus aethiopicus 'Myers'	10a-11	••	<u>~</u> <u>*</u>	2		Herbaceous; red berries, spine-tipped leaves; moderate salt
Bahia grass	Paspalum notatum	8a-11	<b>♦ - • •</b>		2		Low-maintenance turf grass
Beach morning glory	Ipomoea imperati (= I. stolonifera)	8–10b	٥		0.5	Ш	Showy flowering vine; purple or white flowers; good coastal herbaceous plant; poisonous; good drought tolerance; likes sandy soil; moderate salt; native
Bean, beach	Canavalia maritima (= C. rosea)	10b-11	٥		0.5	Ш	Herbaceous perennial; a widespread, vining dune plant; purple flowers; needs sandy soil; high salt; native
Begonia	Begonia spp.	10b-11	<b>♦ - ••</b>	- <u>*</u>	2		Perennial; needs good drainage; succulent star-shaped leaves, pink flowers, green and purple foliage; low salt
Bermuda grass	Cynodon dactylon	8a-11	٥		0.5		Drought-tolerant turf grass; good for sandy soil; wildlife value; high salt
Bird's nest fern	Asplenium nidus	10b-11	••	<u>~</u> <u>*</u>	2.5		Can be epiphytic; likes acidic soil; low salt
Bitter panicgrass	Panicum amarum	8a–9b	٥		3.5	Ш	Bluish leaves; good for stabilizing dunes; bunchgrass; high salt; native
Blue porterweed	Stachytarpheta jamaicensis	9a-11	<b>♦♦♦♦</b> − ♦	<del>*</del> *	1.5		Herbaceous; blue flowers; wildlife value; high salt; native
Blue-eyed grass	Sisyrinchium angustifolium	8a-11	<b>***</b>		0.5		Herbaceous; lovely blue flowers; native
Broomsedge	Andropogon virginicus var. glaucus	8a–10a	••		3–5	Ш	Bunchgrass; good drought tolerance; grows in moist, acidic to neutral sandy soil; moderate salt; native
Cast-iron plant	Aspidistra elatior	9a-11	<b>♦ - • •</b>		2		Herbaceous; deep-shade- and drought-tolerant; likes sandy soil; moderate salt
Centipede grass	Eremochloa ophiuroides	8a–8b	<b>♦♦</b> − ◊	- <u>*</u>	0.5		Turf grass; likes acidic soil; wildlife value; low salt
Cinnamon fern	Osmunda cinnamomea	8a-11	<b>***</b>	<i>△ ×</i>	4		Cinnamon-colored spike bloom; native
Coleus	Coleus x hybridus	10b-11	••	- <u>*</u>	2	Ш	Herbaceous; multicolored leaves; not drought-tolerant; likes fertile, well-drained soil; low salt
Coontie	Zamia pumila	8b-11	<b>♦ - • •</b>	<i>△</i>	2		Cycad; produces a red cone; highly toxic fruit and leaves; wildlife value; high salt; native
Daylily	Hemerocallis hybrids	8a-10b	<b>♦ - • • •</b>		2		Herbaceous; showy colorful flowers; yellow, pink, orange flowers in spring, summer and fall; high salt
False heather	Cuphea hyssopifolia	9b-11	<b>♦♦</b> − ◊	*	1.5		Woody shrub; winter diebacks in north Florida; white and pink flowers; low salt
Fancyleaved caladium	Caladium x hortulanum	9a-11	••	<u>~</u> <u>*</u>	1.5		Herbaceous; arrowhead-shaped multicolored leaves, green spring flower; low salt
Fig, creeping	Ficus pumila	10a-11	<b>♦♦</b> − ◊		NA	Ш	Vine attaches to masonry and climbs trees; irritant; green spring blooms; moderate salt
Fountain grass	Pennisetum setaceum	8–11	••		3		Bunchgrass; green and purple foliage, pink and purple flowers; can escape; low salt
Giant leather fern	Acrostichum danaeifolium	9a-11	<b>***</b>		8		Huge leaves; good in wet areas; high salt; native
Giant sword fern	Nephrolepis biserrata	10b-11	<b>66 - 666</b>	* ~	4		Can form a dense groundcover in shady, moist areas; low salt; native
Ginger, butterfly	Hedychium coronarium	9a-11	<b>***</b>		5	Ш	Perennial herb; fragrant white flowers in spring; moderate salt
Ginger, peacock	Kaempferia spp.	10b-11	••	<u>~</u> <u>*</u>	0.5		Herbaceous; green to purple leaves, spotted or striped; dies back November-December; white, pink and purple flowers; low salt
Ginger, shell	Alpinia zerumbet	10a-11	••	*	8	Ш	Herbaceous; dark green foliage, white and yellow flowers on canes; blooms in spring and winter; moderate salt
Golden creeper	Ernodea littoralis	10b-11	٥		2		Rare; likes sandy soil; evergreen; high salt; native
Gopher apple	Licania michauxii	8a-11	٥		1		Woody; edible fruits, white flowers; thrives in very well drained soil; high salt; evergreen; native
			I .	I .			

SOIL MOISTURE O Dry 66 Moist 6666 Wet

Cyrtomium falcatum

Hedera canariensis

*Ilex vomitoria* 'Shellings'

Holly fern

lvy, Algerian

Holly, dwarf yaupon

LIGHT -— Full Sun 📥 Partial Sun 솓 Shade

9a-11

8a-10a

8-10b

**♦♦♦♦** − ◊

**♦ - • • •** 

Vine; can be invasive; irritant, poisonous; white spring and summer flowers; moderate salt

Prefers moist, shady area; glossy green foliage; likes acidic soil; moderate salt

Woody shrub; dwarf variety forms smooth, rounded bushes; white spring flowers; likes sandy soil; high salt; wildlife value; evergreen; native

49

\* Soil moisture and light listed in order of plant preference

48

1.5

2-5

NA

GROUN	IDCOVERS	Florida Hardiness	Soil Moisture	Light	Mature Size	Growth	
Common Name	Scientific Name	Range	Range*	Range*	(feet)	Rate	Comments
lvy, English	Hedera helix	8a-9b	<b>♦ - ♦ •</b>	<u>~</u> <u>*</u>	NA	IIIII	Vine; takes over; rootlets scar masonry; moderate salt
Jasmine, dwarf Confederate	Trachelospermum asiaticum	8a-10b	••	* *	0.5		Vine; forms a thick mat; invades surrounding areas; yellow or white flowers; evergreen; moderate salt
Juniper, Japanese garden	Juniperus procumbens	8a-10b	<b>♦♦</b> − <b>◊</b>		2		Conifer; 'Nana' is a slow-growing dwarf cultivar, 'Variegata' has yellow and green foliage; good in sandy soil; moderate salt
Juniper, Parson	Juniperus chinensis 'Parsonii'	8–10b	<b>♦ ♦</b>		2		Low-growing conifer; gray-green foliage; needs well-drained soil conditions; moderate salt
Juniper, Pftizer	Juniperus chinensis 'Pftizeriana'	8a–10b	<b>♦♦</b> − <b>◊</b>		6		Conifer; grows best in north Florida; looks best on fertile, well-drained soil, likes sandy soil; moderate salt
Juniper, shore	Juniperus conferta	8a-10a	<b>○</b> - ♦ •		2		Blue-green conifer; high salt
Leather leaf fern	Rumohra adiantiformis	10a-11	••	<u>~</u> <u>*</u>	2		Dark green, leathery leaves used for cut foliage; moderate salt
Lily turf	Liriope spp.	8a-10b	<b>○</b> - ♦ •	- <u>*</u>	1		Herbaceous; forms dense clumps; intolerant of foot traffic; foliage yellows in sun, tips may burn from soil salts; many cultivars available; purple, white, pink or blue flowers; moderate salt
Lopsided Indiangrass	Sorghastrum secundum	8a–11	<b>♦♦</b> − ◊		4		Tall bunchgrass; likes sandy soil; wildlife value; moderate salt; native
Maidencane	Panicum hemitomon	8a-11	<b>♦♦♦♦</b> − ♦		2		Spreading grass; excellent drought tolerance; dune stabilizer and lawngrass; high salt; native
Mangrove spider lily	Hymenocallis latifolia	8a-10b	<b>66 - 666</b>	- <u>*</u>	3	<b>III</b> 00	Herbaceous; showy fragrant flowers attractive to large hawkmoths; white spring flowers; native
Mondo grass	Ophiopogon japonicus	8–10b	<b>♦ - ♦ •</b>	<i>△ ×</i>	0.5		Herbaceous; damaged by foot traffic; white or purple flowers; avoid alkaline soil; moderate salt
Muhly grass	Muhlenbergia capillaris	8a–11	<b>♦♦♦♦</b> − ♦	- <u>*</u>	4		Bunchgrass; mixes well with wildflowers; lovely purple plumes in fall; good in alkaline to neutral soil; wildlife value; high salt; native
Pampas grass	Cortaderia selloana	8a–11	<b>♦ - ♦ •</b>	* *	6		Bunchgrass; likes dry conditions; sharp serrations on leaves; grows in large clumps; tolerates a wide soil range; moderate salt
Periwinkle	Catharanthus roseus	10b-11	<b>♦♦</b> − ◊		1.5		Herbaceous; can be invasive; freezes back in north Florida; white, purple or pink flowers; good in dry sandy or coastal sites; high salt
Porcupine grass	Miscanthus sinensis	8a–9a	<b>♦♦</b> − ◊		6	Ш	Variegated leaves; gets rust but it goes away; silvery gold flowers in spring and fall; likes sandy soil
Powderpuff	Mimosa strigillosa	8a-9b	••		0.5	IIIII	Herbaceous; fern-like leaves, sensitive to touch; lovely, interesting, similar to exotic Schrankia microphylla; has thorns; pink flowers in spring and summer; native
Purple lovegrass	Eragrostis spectabilis	8a–9b	<b>○</b> - ♦♦♦♦		2.5		Bunchgrass; purple flowers in spring and fall, purple fall plumes; likes dry areas with high pH; wildlife value; low salt; native
Purple queen	Tradescantia pallida	8a-10a	<b>♦♦</b> − <b>◊</b>	*	1	IIIII	Herbaceous; sprawling, open growth; invasive; will tolerate poor sites; high salt
Quailberry	Crossopetalum ilicifolium	10b-11	٥		2		Shrublike, spiny; red fruit, rare red flowers; evergreen; wildlife value; low salt; native
Railroad vine	lpomoea pes-caprae	9a-11	٥		0.5	IIIII	Creeping, flowering dune vine; poisonous; purple flowers in spring and fall; likes sandy soil; high salt; native
River oats	Chasmanthium latifolium	8a	<b>**</b> - <b>***</b>	~ <u>*</u>	2		Bunchgrass; fruits as lovely as sea oats; wildlife value; low salt; native
Royal fern	Osmunda regalis	8a-10b	••••	* ~	5		Large leaves; likes acidic soil; low salt; native
Saltgrass	Distichlis spicata	8–11	<b>***</b>		1.5		Warm-season perennial grass; likes sandy soil; high salt; native
Saltmeadow cord grass	Spartina patens	8a-9b	<b>○</b> - <b>♦ ♦ ♦</b>		2		Spreading grass; likes sandy soil; moderate salt; native
Sand cord grass, switchgrass	Spartina bakeri	8a-11	<b>○</b> - <b>♦ ♦ ♦</b>		3–6		Robust perennial bunchgrass of salt marshes and dunes; high salt; native
Sea oats	Uniola paniculata	8a-11	٥		4		Protected grass species; excellent for dunes; flower and seed heads are distinctive; high salt; wildlife value; native
Sea purslane	Sesuvium portulacastrum	9–10b	٥		1–3		Herbaceous; succulent beach wildflower; pink flowers; likes sandy soil; high salt; native
Seashore dropseed	Sporobolus virginicus	8a-11	<b>○</b> - <b>♦ ♦ ♦</b>		1		Bunchgrass; coastal plant; wildlife value; high salt; native
Seashore paspalum	Paspalum vaginatum	8–11	***	- <del>\</del> \	2		Coastal grass; dune stabilizer; makes a thin lawn; high salt; native
Shrubverbena	Lantana depressa	10b-11	<b>♦♦</b> − ◊		1.5		Perennial; excellent drought tolerance; hybridizes freely with Lantana camara; yellow flowers; prefers sandy soil; high salt; native
Smooth cord grass	Spartina alterniflora	8a-11	<b>♦♦♦♦</b> – ◊		4		Herbaceous; coastal, salt-tolerant spreading grass; wildlife value; high salt; native
Smooth water-hyssop	Bacopa monnieri	8a-11	***		0.5		Herbaceous; flowering groundcover for wet areas; white or pink flowers; high salt; native
Snowberry, pineland	Chiococca alba (= C. pinetorum)	10b-11	<b>♦♦</b> − ◊		2.5		Vining shrub with attractive white flowers; grows on shell areas; evergreen; low salt; native
Society garlic	Tulbaghia violacea	10a-11	••	* *	1.5		Herbaceous; garlic-scented purple flowers in spring, summer and fall; doesn't bloom well in shade; moderate salt
SOIL MOISTURE 💍 Dry	♦♦ Moist ♦♦♦♦ Wet	LIGHT	Full Sur	Partial	Sun 🔼	Shade	GROWTH RATE []]]]] Slow []]] Medium []] Fast *Soil moisture and light listed in order of plant preference

# GROUNDCOVERS

Common Name	Scientific Name	Florida Hardiness Range	Soil Moisture Range*	Light Range*	Mature Size (feet)	Growth Rate	Comments
Southern shield fern	Thelypteris kunthii	8a-10b	<b>6666-66</b>	* ~	2.5	<b>III</b> 00	Grows on rocks and in shade; likes alkaline soil; low salt; native
St. Augustine grass	Stenotaphrum secundatum	8a-11	<b>♦♦</b> − ◊	<u></u>	0.5	Ш	Turf grass; high salt; native
St. John's wort, Atlantic	Hypericum reductum	8a–9b	٥		1.5		Also called scrubwort; herbaceous; reclining, bushy-branched flowering shrub; likes sandy soil; small yellow flowers in spring and summer; high salt; evergreen; native
Strawberry	Fragaria chiloensis	8a–9b	••		1		Vulnerable to pests; low salt
String-lily	Crinum americanum	8a-11	<b>6666-66</b>	- <u>*</u>	1.5		Herbaceous; forms solid cover in wet areas; fragrant white flower in spring and summer; poisonous; likes sandy soil; high salt; native
Sunflower, beach	Helianthus debilis	8a–10b	<b>○</b> - ♦ •		1.5	IIIII	Herbaceous annual or perennial in south Florida; showy yellow flowers; very drought-tolerant; good for dunes and sunny spots; likes sandy soil; high salt; native
Swamp fern	Blechnum serrulatum	9a-11	***	<u>~</u> <u>*</u>	2		Likes shady, moist areas and acidic soil; low salt; native
Walking iris	Neomarica spp.	10b-11	<b>66 - 666</b>		3		Herbaceous; blue, yellow or white flowers in spring; flower lasts one day; low salt
Wandering Jew	Tradescantia pendula	8a-10a	<b>♦♦</b> − ◊	<u>~</u> <u>*</u>	0.5	IIIII	Herbaceous; doesn't tolerate foot traffic; invasive; low salt
Wild petunia	Ruellia caroliniensis	8a-11	<b>♦♦</b> − ◊		1–3		Semi-woody; good for shady areas; pale blue flowers in spring and summer; low salt; native
Wiregrass	Aristida beyrichiana	8a–10a	<b>♦♦</b> − ◊		2–3		Bunchgrass; flowers following fire; ideal for mixing with wildflowers in dry areas; wildlife value; native
Zoysiagrass	Zoysia japonica	8a-11	<b>♦♦</b> − ◊	<u></u>	0.5	10000	Grass; high salt



Periwinkle *Catharanthus roseus* 

SOIL MOISTURE \( \rightarrow Dry \) \( \limin Moist \) \( \limin Wet \)



Partial Sun

Saltmeadow cord grass
Spartina patens

Full Sun

LIGHT



Powderpuff
Mimosa strigillosa

Sea oats
Uniola paniculata

52



Lily turf Liriope spp.



Juniper

\* Soil moisture and light listed in order of plant preference



# VINEC

VINES	S				
Common Name	Scientific Name	Florida Hardiness Range	Soil Moisture Range*	Light Range*	Growth Rate
Allamanda, yellow	Allamanda cathartica	9b-11	٥		IIIII
Bleeding heart	Clerodendrum thomsoniae	8a–11	<b>○</b> - <b>♦♦</b>	- <u>*</u> -	Ш
Bougainvillea	Bougainvillea spectabilis	9b-11	٥		IIII
Bower vine	Pandorea jasminoides	10b-11	••		Ш
Brazilian golden vine	Stigmaphyllon littorale	9b-11	••	<u></u>	IIII
Bridal bouquet	Stephonotis floribunda	10b-11	••	*	■0000
Ceriman	Monstera deliciosa	10a-11	••	<u>~</u> <u>*</u>	■0000
Coral honeysuckle	Lonicera sempervirens	8a-10	<b>♦♦</b> - ◊	*	Ш
Corky-stem passion flower	Passiflora suberosa	9b-11	<b>○</b> - <b>♦ ♦</b>	<u>*</u>	IIII
Crossvine	Bignonia carpeolata	8a-11	<b>♦♦</b> - ◊	<del>*</del> <del>*</del>	IIIII
Grape, Blue Lake	Vitis smalliana labrusca	8a-11	••		
Grape, Lake Emerald	Vitis simpsoni labrusca	8a-11	••		
Grape, muscadine	Vitis rotundifolia	8a-11	••		
Herald's-trumpet	Beaumontia grandiflora	10a-11	••	- <u>*</u> -	Ш
Incense passion flower	Passiflora x 'incense'	9a-11	<b>♦♦</b> - ◊		IIII
Mandevilla	Mandevilla spp.	9b-11	••		IIIII
Mangrove rubber vine	Rhabdadenia biflora	10a-11	<b>♦♦</b> - ◊		■0000
Morning glory	Ipomoea pes-caprae	9b-11	٥		Ш
Passion flower	Passiflora incarnata	8a-10	<b>○</b> - <b>♦ ♦</b>	<u></u>	IIII
Purple passion flower	Passiflora edulis	9b-11	<b>♦♦</b> - ◊		Ш
Queens wreath	Petrea volubilis	10a-11	••	<u></u>	
Scarlet passion flower	Passiflora coccinea	10a-11	<b>♦♦</b> - ◊		Ш
Trumpet vine	Campsis radicans	8a-9	•• - ◊	<u>*</u>	IIII
Virginia creeper	Parthenocissus quinquefolia	8a-11	<b>♦♦</b> - ◊	- <u>*</u> -	Ш
White thunbergia	Thunbergia fragrans	9b-11	••	<del>*</del> *	IIIII
Wisteria, American	Wisteria frutescens	8a–9a	••		
V-II ii	C-1	0- 11	<b>*</b> * * *	<u> </u>	

Comments

Fragrant, waxy flowers; low salt; evergreen

Large, heavy vine requires strong support; low salt; evergreen Showy flowers are self-sterile; low salt; wildlife value; evergreen

Shade

GROWTH RATE [[[[]]] Slow [[]] Medium Fast

\* Soil moisture and light listed in order of plant preference



SOIL MOISTURE O Dry Moist Wet

Gelsemium sempervirens

Incense passion flower Passiflora x 'incense'

Yellow iessamine



8a-11

LIGHT

Full Sun

Coral honeysuckle Lonicera sempervirens



Partial Sun

Coral honeysuckle Lonicera sempervirens



Virginia creeper Parthenocissus quinquefolia

Requires support; can get leggy; poisonous milky sap; fragrant large flowers; susceptible to magnesium deficiency; low salt; evergreen

Edible fruit with pineapple-banana taste; large leaves, variegated varieties available; not frost-tolerant; low salt; evergreen

Grows slowly at first; many varieties; disease-resistant; self-fertile; purple fruit in August; deciduous; low salt; native

Also known as trumpet honeysuckle; tubular flowers attract butterflies and hummingbirds; red fall berries; wildlife value; medium salt; evergreen; native Older vines have deeply grooved, corky stems; tiny flowers, small purple fruits; great variation in leaf shape; wildlife value; medium salt; evergreen; native

Also called may pop and apricot vine; will sucker some distance away; dies back to ground after freeze; large showy flowers, large edible fruit; wildlife value; low salt; deciduous; native

Exotic bright flowers; more tropical than P. edulis; heavily damaged by nematodes; vigorous vine requires strong support; low salt; wildlife value; evergreen

Also called woodbine; 5 leaflets distinguish it from poison ivy; purple fruit; climbs by adhesive pads which may mark painted or wooden surfaces; low salt; wildlife value; deciduous; native

Subtropical species; tolerates cool periods and slight frosts for short time; many varieties available; edible fruit; wildlife value; low salt; evergreen

Woody vine; persistent showy flower; used in south Florida as wisteria substitute; prefers rich, sandy soil; low salt; evergreen

Also known as sky flower and Bengal clock vine; large flowers with white throats; vigorously aggressive; low salt; evergreen

Climbs by tendrils and adhesive disks; large, long-throated flowers; cross sections of stems are cross-shaped; low salt; evergreen; native

Named for its flowers; susceptible to nematode damage; killed to ground by freezes; low salt; evergreen

White flowers with pink throats; protect from wind; prefers rich, fertile soil; medium salt; evergreen Small flower clusters; requires support to climb; needs little care once established; low salt; evergreen

Grows slowly at first; many varieties; disease-resistant; blue fruit in mid-July; deciduous; low salt Grows slowly at first; many varieties; disease-resistant; blue fruit in mid-July; deciduous; low salt

Also known as cow itch vine; mild skin irritant; may become invasive; low salt; deciduous; native

Small leaves and flowers; suited to small areas; grows best in north Florida; low salt; deciduous; native

All parts are poisonous; can be trained to grow on trellis or fence; low salt; evergreen; native

Trumpet-shaped flowers with darker throats; cold-sensitive; medium salt; evergreen White flower with yellow throat; related to oleander; high salt; evergreen; native Beach dune pioneer; can be trained over a trellis; high salt; evergreen; native

Rambling; very drought-resistant; blooms on new growth; thorny; medium salt; evergreen



**Passion flower** Passiflora incarnata

FLOW	ERS	Florida	Soil		Mature		
Common Name	Scientific Name	Hardiness Range	Moisture Range*	Light Range*	Size (feet)	Growth Rate	Comments
Agapanthus	Agapanthus africanus	9b-11	<b>♦♦</b> − ◊	<del>*</del> <del>*</del>	2		Perennial; strap-like basal leaves, 2-foot flower spikes with large round flower clusters on top; blue or white spring flowers; problem with chewing insects; medium salt
Ageratum	Ageratum houstonianum	8a–11	<b>♦♦</b> − ◊	<u></u>	1	IIIII	Also called floss flower; not very heat-resistant; cold-tender; problems with aphids, red spiders and leafhoppers; varied spring and summer flowers; requires well-drained soil
Amaryllis	Hippeastrum hybrids	8a-9b	••	<del>-</del>	2		Perennial; varied spring flowers; may require winter rest to flower well; medium salt
Annual garden phlox	Phlox drummondii	8a-11	<b>○</b> - ♦ •	<del>*</del> *	0.5	IIIII	Annual; clusters of 1-inch flowers of varied colors; used along roadways; reseeds; cold-hardy; low salt
Aster, golden	Pityopsis graminifolia	8a-11	0-00	<u></u>	3		Perennial; also called silkgrass; often occurs in groups; grass-like, narrow linear leaves with silvery pubescence; yellow spring, summer and fall flowers; likes acidic soil; low salt; native
Aster, Stokes	Stokesia laevis	8a-11	<b>♦♦</b> − ◊	<del>*</del> *	1		Perennial; cold-hardy; prone to root rot and aphids; blue spring flowers; requires well-drained soil; medium salt; native
Atamasco-lily	Zephyranthes atamascao	8b-11	<b>**</b> - <b>***</b>	<u></u>	2		Perennial; also called rain-lily; erect white flowers atop grass-like foliage; amaryllis family; bulb is toxic; threatened in Florida; high salt; native
Beardtongue, white	Penstemon multiflorus	8a-11	٥		3		Perennial; also called pineland penstemon; basal rosette; snapdragon family; white spring, summer and fall flowers; likes sandy soil; low salt; native
Begonia, wax	Begonia x semperflorens-cultorum	8a-11	•• - ◊	<u></u>	1		Cold-tender; sun-adapted cultivars available; leaves can be green, bronze or mahogany red; damaged by nematodes; does best during cooler months; likes acidic soil; low salt
Bird-of-paradise	Strelitzia reginae	9a-11	••	<del>*</del> - <del>*</del>	4		Perennial; plant in protected locations in central Florida; spreads laterally with age; old clumps may be 10 feet across; orange or blue flowers; likes acidic soil; low salt
Black-eyed Susan	Rudbeckia hirta	8a-11	••		3		Annual; not damaged by root-knot nematodes; yellow petals with brown centers; spring, summer and fall flowers; native
Blanket flower	Gaillardia pulchella	8a-11	٥		2	IIIII	Annual or perennial; does well in sand; reseeds readily; bi-color rayed flowers; great color variation; few insect problems; high salt; native
Blazing star	Liatris spicata	8a-11	<b>♦♦</b> − ◊	<u>*</u>	3		Perennial; also called dense gayfeather; dramatic spikes of small, thread-like clusters of purple or white flowers in spring, summer and fall; low salt; native
Blue curls	Trichostema dichotomum	8a-11	<b>♦♦</b> − ◊		2	IIIII	Annual; blue flowers in summer and fall; likes sandy soil; high salt; native
Blue porterweed	Stachytarpheta jamaicensis	9b-11	٥		1.5	IIIII	Perennial; low mounding form; Asian import Stachytarpheta urticifolia has an upright habit; lavender flowers; likes sandy soil; high salt; native
Blue twinflower	Dyschoriste oblongifolia	8b-11	٥		0.5	IIIII	Perennial; also called oblongleaf twinflower; likes sandy soil; low salt; native
Butterfly weed	Asclepias tuberosa	8a-9b	0-66	<u></u>	2	IIIII	Perennial; also known as pleurisy root; important nectar and larval plant; orange or red spring, summer and fall flowers; likes acidic soil; medium salt; wildlife value; native
Canna x generalis	Canna x generalis	8a-11	<b>***</b> - **	<u>*</u>	5	IIIII	Perennial; colors can be striped or splashed; dwarf cultivars available; problems with canna leaf roller; frost-sensitive; low salt
Cardinal flower	Lobelia cardinalis	8a-11	<b>**</b> - <b>***</b>	<u>*</u>	3		Perennial; stalks of intensely red flowers in spring, summer and fall; low salt; wildlife value; native
Chrysanthemum, garden	Chrysanthemum morifolium	8a-9b	••	* *	3		Perennial; hardiness varies with cultivar; divide in spring; pinching increases bushiness and flowering; problems with nematodes, mites, thrips and aphids; not recommended for south Florida; fall blooms; low salt
Cigar flower	Cuphea ignea	10a-11	•• - ◊	<del>*</del> <del>*</del>	2	IIIII	Perennial; long tubular red flower tipped with black and white, resembling ash on a cigar; spring and summer blooms; low salt
Cigar plant	Cuphea micropetala	9a-11	٥		3	IIIII	Perennial; upright bedding plant; yellow or orange fall blooms; likes sand; low salt; wildlife value
Climbing aster	Aster carolinianus	8a-11	<b>**</b> - <b>***</b>	<u>*</u> - *	1.5	IIIII	Perennial; sprawling; flower color varies; fall blooms; likes sand; low salt; wildlife value; native
Cockscomb	Celosia argentea (= C. cristata)	8a-11	<b>♦ - ••</b>		2	IIIII	Annual; many cultivars available; damaged by root-knot nematodes; cold-tender; spring flowers; likes sandy soil; low salt
Common tickseed	Coreopsis leavenworthii	8a-11	••		5	IIIII	Perennial; found on disturbed sites; yellow petals with brown centers; likes sandy soil; low salt; native
Coreopsis	Coreopsis tinctoria	8a-11	<b>○</b> - <b>♦ ♦</b>		3	Ш	Perennial; also called tick-seed; not damaged by root-knot nematode; remove faded flowers to prolong bloom; reseeds; yellow spring and summer flowers; tolerant of well-drained, poor soil; low salt
Cosmos	Cosmos bipinnatus	8a-11	٥		4	IIIII	Annual; cold-tender; may need staking; reseeds; varied spring and summer blooms; prefers dry, infertile soil; low salt
Cream narcissus	Narcissus tazetta	8a-9a	••		1.5		Perennial; cold-hardy; amaryllis family; white or yellow flowers in winter and spring; prefers clay or alkaline soil; low salt
Crinum lily	Crinum spp.	8a-10b	••	* *	4		White, pink and red forms available, some striped or multi-colored; problem with chewing insects and caterpillars; prone to leaf spot in south Florida; blooms in spring and summer; likes sandy soil; medium salt
Dotted horsemint	Monarda punctata	8a-11	<b>○</b> - <b>♦ ♦</b>		4	IIIII	Perennial; also called spotted bee balm; aromatic foliage; likes sandy soil; high salt; wildlife value; native
Dusty miller	Senecio cineraria	8a-11	<b>○</b> - ♦ •	<u></u>	1		Annual; tolerates heat; versatile border plant; silver/gray foliage, yellow spring blooms; must be re-planted every few years; does well in dry or sandy soil; low salt
Florida violet	Viola sororia	8a-11	••	* *	0.5		Perennial; also known as common blue violet; blue spring blooms; likes sandy soil; low salt; native
Four o'clock	Mirabilis jalapa	8a-11	<b>♦♦</b> − ◊	· <u>*</u>	2	IIII	Perennial; also called marvel-of-Peru; funnel-shaped flowers open in late afternoon and close in morning; often reseeds; blooms in spring, summer and fall; low salt

GROWTH RATE | []]]] Slow | | | | | | | | Medium | | | | | Fast

\* Soil moisture and light listed in order of plant preference

SOIL MOISTURE O Dry 66 Moist 6666 Wet

LIGHT

— Full Sun 🛮 📥

Partial Sun 🔑 Shade

FLOW	ERS						
		Florida Hardiness	Soil Moisture	Light	Mature Size	Growth	
Common Name	Scientific Name	Range	Range*	Range*	(feet)	Rate	Comments
Geranium	Pelargonium x hortorum	8b-11	<b>♦♦ -</b> ♦		2		Won't flower in shade or if overwatered; blooms in fall, winter and spring; cool-weather annual; likes sandy soil; low salt
Gerbera daisy	Gerbera jamesonii	8b-11	• • •	- <del>-</del>	1.5		Perennial; daisy-type flowers, single and double flowers available; don't plant too deep; sand in crown rots plant; low salt
Globe amaranth	Gomphrena globosa	8a–11	<b>♦ - • • • • • • • • • • • • • • • • • • </b>		2	IIIII	Annual; showy, clover-like flower heads; cold-tender; blooms in spring and summer; likes sandy soil; low salt
Green eyes	Berlandiera subacaulis	8a–11	0	- <del>\</del>	1.5	IIIII	Perennial; greenish-yellow flower; likes sandy soil; low salt; native
Impatiens	Impatiens spp.	9a-11	••		2	IIIII	Annual; reseeds in moist areas; not frost-hardy; may require watering during hottest months; likes sandy soil; low salt
Iris, African	Dietes iridioides	9b-10b	<b>♦ - ••</b>	<del>*</del> <del>*</del>	3		Perennial; spreads by rhizomes; white spring flowers; likes sandy soil; low salt
Iris, blue flag	Iris hexagona	8a–11	••	<u></u>	3		Perennial; also called Dixie or prairie iris; found in swamps and wet prairies in north and central Florida; blue spring flowers; likes acidic or sandy soil; low salt; native
Iris, spuria hybrids	Iris spp.	8a-9a	<b>**</b> - <b>***</b>	* *	2	Depends on species	Perennial; 150+ cultivars available; different species have different cultural requirements; low salt
Iris, Virginia	Iris virginica	8a-11	<b>**</b> - <b>***</b>		3		Perennial; also called Virginia iris; flowers in spring in south Florida and in summer in north Florida; purple, lavender and yellow blooms; low salt; native
Iris, yellow African	Dietes bicolor	9b-11	<b>○</b> - ••	<del>-</del>	3		Perennial; also called fortnight lily; yellow flowers bloom on a two-week cycle in spring and summer; likes sandy soil; low salt
Kalanchoe	Kalanchoe blossfeldina	9b-11	٥	<u></u>	1.5	<b>1</b> 0000	Perennial; succulent, often invasive; other species have different forms; common potted plant; spring and summer blooms; prefers sandy soil; medium salt
Lantana, gold mound	Lantana camara 'Gold Mound'	9b-11	٥		3	IIII	Perennial; gold mound is sterile variety; too much water and fertilizer reduce blooming; foliage damaged at 25°F, freezes to ground at 20°F; does well in sandy, dry sites; high salt; evergreen
Lantana, trailing	Lantana montevidensis	9a-11	٥		2		Perennial; won't tolerate foot traffic or mowing; foliage damaged at 25°F, freezes to ground around 20°F; purple flowers; does well in sandy, dry sites; high salt; evergreen
Lizards tail	Saururus cernuus	8b-11	<b>***</b> - <b>**</b>	2	3	IIII	Annual; nodding spikes of white flowers; rhizomatous; forms extensive colonies; likes sandy soil; low salt; native
Marigold, French	Tagetes patula	8a-11	••		2	IIII	Annual; summer heat causes temporary decline in flowering; not damaged by root-knot nematodes; yellow or orange flowers in spring, summer and fall; tolerates dry soil; low salt
Marigold, sweet	Tagetes lucida	8b-11	••		3		Annual; long-lasting cut flower; prone to scale; yellow spring, summer and fall blooms; low salt
Mexican sunflower	Tithonia diversifolia	9b-11	<b>♦ - • • •</b>		6		Perennial; can be invasive; roots easily; heat- and drought-resistant; yellow spring and summer flowers smell like honey; likes sandy soil; medium salt; wildlife value
Mistflower	Conoclinium coelestinum	8a-11	••-◊		2		Perennial; fluffy blue flowers on stalks; hardy, adaptable; plant in north Florida April-May, in central Florida March-April and September-October, in south Florida November-February; likes sandy soil; low salt; native
Moss rose	Portulaca grandiflora	8a-11	<b>○</b> - <b>♦ ♦</b>		0.5		Annual; low-growing succulent; excellent groundcover; fleshy, often reddish, stems; flowers short-lived but prolific; cold-tender; likes sandy soil; medium salt
Nasturtium	Tropaeolum majus	8a–9b	٥		1	IIII	Annual; also called Indian cress; quits flowering during prolonged heat; winter blooms; heavily damaged by root-knot nematodes; tolerates poor, sandy soil; low salt
Paint brush	Carphephorus corymbosus	8a-11	٥		4		Perennial; aster family with flattish heads of tubular rose-colored flowers; fall blooms; prefers acidic soil; low salt; native
Pentas	Pentas lanceolata	8a–11	<b>♦ - • • • • • • • • • • • • • • • • • • </b>	* *	4	IIII	Perennial; sprawling shrub; likes sandy soil; low salt; wildlife value
Petunia	Petunia x hybrida	8a-11	••		1.5		Popular annual; cold-hardy to 20°F, can't tolerate heat; bi-colors available; problems with crown rot, aphids and nematodes; fall, winter and spring flowers; low salt
Phlox	Phlox subulata	8a–9b	<b>♦♦</b> − ◊	- <del>\</del>	3	IIII	Perennial; spreading; cold-hardy; blue, purple or lavender spring flowers; likes sandy soil; low salt
Pineland heliotrope	Heliotropium polyphyllum	9b-11	<b>♦♦</b> − ◊	-—-	2.5	IIII	Perennial; occurs from Flagler County to Keys; white flowers; likes sandy soil; low salt; native
Purple coneflower	Echinacea purpurea	8a-11	<b>♦ - ••</b>		2		Perennial; clumping; long-lasting cut flowers; purple flowers in spring and summer; prefers well-drained soil; medium salt; native
Rain-lily	Zephyranthes simpsonii	8a-11	<b>6666-66</b>	<u></u>	1		Perennial; herbaceous; grass-like foliage; purple, white and pink flowers; blooms after rains during warm weather; high salt; native
Rattlesnake master	Eryngium yuccifolium	8a-11	<b>♦ - • • • • • • • • • • • • • • • • • • </b>		3		Perennial; also called button snakeroot; branched stalks of white, button-like flowers from weakly spiny yucca-like leaves; blooms in spring, summer and fall; likes sandy soil; low salt; native
Sage	Salvia spp.	8a-11	<b>♦♦</b> − ♦		2–5	Depends on species	Perennial; bushy and upright; many species available; flowering species-dependent; likes sandy soil; low salt
Sage, lyre-leaved	Salvia lyrata	8a-11	<b>♦♦</b> − ◊	<u>*</u>	1.5		Perennial; basal rosette with lyre-shaped red markings on leaves; slender stalks, purple spring flowers; mint family; likes sandy soil; low salt; native
Sage, scarlet	Salvia splendens	8a-11	••	<u>*</u> - *	2	IIII	Annual; attracts hummingbirds; cut back for multiple flowering; red spring and summer blooms; likes sandy soil; low salt; wildlife value
Sage, tropical red	Salvia coccinea	8a-11	<b>♦ - • • • • • • • • • • • • • • • • • • </b>		2	IIII	Perennial; reseeds profusely; likes sandy soil; medium salt; wildlife value; native
Scarlet milkweed	Asclepias curassavica	9b-11	<b>♦ - ••</b>		4	IIIII	Perennial; also called blood flower and tropical milkweed; orange, red or yellow flowers in spring, summer and fall; likes sandy soil; low salt; wildlife value
SOIL MOISTURE O Dry	♦♦ Moist ♦♦♦♦ Wet	LIGHT	Γ Full Sun	- <u></u> Partial	Sun 솓	Shade	GROWTH RATE CONTROL Slow Market Market GROWTH RATE Soil moisture and light listed in order of plant preference

# FLOWERS

		Florida Hardiness	Soil Moisture	Light	Mature Size	Growth	
Common Name	Scientific Name	Range	Range*	Range*	(feet)	Rate	Comments
Scorpion tail	Heliotropium angiospermum	9a-11	٥		3	Ш	Perennial; seaside heliotrope, Heliotropium curassavicum, does well on coastal sites; white flowers; prefers sandy soil; native
Sea oxeye daisy	Borrichia frutescens	8b-11	<b>○</b> - <b>● ●</b>		3		Perennial; forms extensive colonies; silvery foliage, yellow flowers; in southwest Florida, Borrichia arborescens has dark green leaves; likes sandy soil; high salt; native
Seaside goldenrod	Solidago sempervirens	8a-11	<b>♦♦</b> − ◊		6	IIIII	Perennial; doesn't cause allergies; yellow spring and fall blooms; likes sandy soil; high salt; native
Shasta daisy	Chrysanthemum x superbum	8b-11	••	* *	2		Annual; white with yellow center, white winter flowers; dwarf varieties available; divide clumps in fall for new plantings; excellent cut flower; low salt
Snapdragon	Antirrhinum majus	8a-11	••	<u></u>	2	Ш	Annual; many cultivars available; grows from 6 inches to 6 feet; remove spent flowers for re-bloom; damaged by root-knot nematodes; winter and spring flowers
Spider lily	Hymenocallis latifolia	9a-11	<b>○</b> - <b>♦ ♦</b>		3		Perennial; fragrant white flowers in spring, summer and fall; stalks grow from strap-like leaves; thin white membrane in center of flower; likes sandy soil; high salt; native
Spiderwort, blue	Tradescantia ohiensis	8a-11		<b>* *</b>	3		Perennial; rhizomatous; forms clumps; blue flowers; native
Spiral ginger	Costus barbatus	8a-11	<b>○</b> - <b>♦ ♦</b>		5		Perennial; also called red torch ginger; showy, waxy red flowers atop tall stalks in spring, summer and fall; large spiral-arranged leaves; sprawling, spreading clump; likes sandy soil; medium salt
String-lily	Crinum americanum	8a-11	<b>♦♦♦♦ – ♦♦</b>	<del>*</del> <del>*</del>	3		Perennial; also called swamp lily; tall, fragrant, stringy white flower; blooms in spring, summer and fall; stalks grow from strap-like leaves; amaryllis family; likes acidic soil; low salt; native
Sunflower, beach	Helianthus debilis	8a-11	٥		1.5		Perennial; yellow rayed flower with maroon; reseeds readily; may form extensive colonies; likes sandy soil; high salt; native
Sunflower, narrow-leaved	Helianthus angustifolius	8a–9b	<b>66 - 666</b>		6	<b>III</b> 00	Perennial; bright-yellow rayed flowers in summer and fall; prefers acidic and sandy soil; low salt; native
Sweet alyssum	Lobularia maritima	8a-11	••	* *	1		Perennial; grows low to ground; often used for borders or edges; cold-hardy; lavender, purple, pink or white flowers in fall, winter and spring; low salt
Sweet William	Dianthus barbatus	8a–9b	<b>○</b> - <b>♦ ♦</b>	<b>∠</b>	1.5		Annual; also known as sweet William; hardy, grows in north Florida winter; lightly damaged by root-knot nematodes; purple or red flowers in spring, fall and winter; likes sandy soil; low salt
Verbena, beach	Glandularia maritima	9b-11	٥		1.5		Perennial; also called coastal mock vervain; reseeds in sandy disturbed areas; doesn't like mulch; uncommon, threatened; purple flower; prefers sandy soil; high salt; native
Verbena, garden	Verbena x hybrida	9a-11	••		1.5		Perennial; many varieties of cultivars available; problems with scale, mealybug and chewing insects; freezes to ground but will re-grow from roots; needs good air circulation; spring, fall and winter blooms; likes sandy soil; low salt
Verbena, moss	Glandularia pulchella	8a-11	<b>♦ - ♦ •</b>		0.5	Ш	Annual; finely divided leaves; prostrate growth habit; drought-tolerant; can sustain itself with infrequent mowing; purple spring, summer and fall flowers; likes sandy soil; low salt
Verbena, purpletop	Verbena bonariensis	8a-9b	٥	* *	4	IIIII	Perennial; upright; attracts butterflies; purple flowers in spring and summer; low salt; wildlife value
Verbena, Tampa	Glandularia tampensis	9b-11	<b>♦♦</b> − ◊		2		Perennial; purple flowers cluster atop long stalks; blooms in spring, summer and fall; likes sandy soil; high salt; wildlife value; native
Wild columbine	Aquilegia canadensis	8a-9b	<b>♦ - ••</b>	<u>~</u> <u>*</u>	3	<b>1</b> 0000	Perennial; dainty plant with nodding blooms; red or yellow spring flowers; endangered in Florida; prefers alkaline soil; low salt; wildlife value; native
Wild petunia	Ruellia caroliniensis	8a-11	<b>♦ - • • •</b>	* *	1.5		Herbaceous; large variety of form and color; red or yellow flowers in spring; likes sandy soil; low salt; native
Wishbone flower	Torenia fournieri	9a-11	••	* *	1	Ш	Annual; also called bluewings; escaped cultivation is found on disturbed sites; blooms in spring, fall and winter
Woodland pinkroot	Spigelia marilandica	8a-9a	••	<i>← ★</i>	2		Perennial; also known as Indian pink; blooms spring and summer; prefers acidic and sandy soil; low salt; wildlife value; native
Yarrow	Achillea millefolium	8a-11	•• - ◊	-	1.5		Perennial; clumping growth habit; cold-hardy; white or pink flowers in spring; low salt; native
Yellow canna	Canna flaccida	8a–11	<b>66 - 666</b>	*	4	Ш	Perennial; good all-around groundcover; comes back from freezes; yellow spring and summer flowers; prefers wet sites and sandy soil; low salt; native
Yellowtop	Flaveria linearis	8b-11	•• - ◊		4	IIIII	Perennial; goldenrod relative with flat-topped clusters of small yellow flowers; likes sandy soil; high salt; native



SOIL MOISTURE \( \rightarrow \textit{Dry} \) \( \limin \textit{Moist} \) \( \limin \text{Wet} \)

Verbena, moss Glandularia pulchella



Blanket flower Gaillardia pulchella

LIGHT



Full Sun

Partial Sun

Spiderwort



Tradescantia ohiensis

Shade

Purple coneflower Echinacea purpurea





Crinum lily Crinum spp.



Aster, Stokes Stokesia laevis

\* Soil moisture and light listed in order of plant preference



# FLOWERS





Wild petunia
Ruellia caroliniensis



Butterfly weed

Asclepias tuberosa



Wild columbine

Aquilegia canadensis



Rain-lily Zephyranthes simpsonii



63

Salvia coccinea

## **Glossary**

acid — A condition which is derived by partial exchange of replaceable hydrogen; an element that is sour; on the pH scale, acid conditions are any pH below 7.0 which is neutral.

alkaline — The condition of water or soil that contains an amount of alkali substances (various soluble salts) to raise the pH above 7.0; when extreme, alkalinity is caustic.

aquifer — A layer of underground rock or sand which stores and carries water.

brackish — Somewhat salty.

conserve — To use only what is needed.

deciduous — Losing foliage in autumn or winter.

drawdowns — Lowered water levels.

**ecotones** — Regions where one ecosystem blends into another.

epiphyte — A plant that gets its moisture and nutrients from the air and rain.

**groundcovers** — Small plants that live close to the ground.

groundwater — Water below the earth's surface.

herbaceous — Having the texture, color or appearance of a leaf, with little or no woody tissue.

humus — Decomposed plant or animal matter; the organic portion of soil.

hydric — Characterized by abundant moisture.

**inorganic** — Composed of matter other than plant or animal.

leach — To pass through by percolation.

marl — A loose earthy deposit containing a substantial amount of calcium carbonate; used for soils deficient in lime.

mesic — Moist conditions; characterized by a moderate amount of moisture.

microclimate — A small-scale site of special conditions within a larger climate.

plat — A plan or map of a piece of land.

potable — Water suitable for human consumption.

**practical turf area** — A place where grass serves a function, such as a child's or pet's play area.

recharge area — A place where water is able to seep into the ground and replenish an aquifer because no confining layer is present.

saline — Containing salt.

saltwater intrusion — When salt water moves into the freshwater zone of an aquifer, making the water unfit for drinking.

shrub strata — The shrub layer of a forest community, under the canopy and understory tree species.

**sinkhole** — A hole in the ground caused by erosion of underground limestone.

**specimen planting** — A plant located as a stand-alone highlight in a landscape design.

**stormwater runoff** — Rainwater that runs off surfaces into water bodies.

succession — A series of ecosystem changes where plants compete, succeeding and displacing each other as they respond to, and so modify, their environment.

topography — Natural features of land.

**understory** — The vegetative layer under a forest canopy, but above the shrub and groundcover layers.

water resource caution areas — Areas identified by the water management districts where existing sources of water may not be adequate to supply water for future human needs while maintaining water resources and related natural systems.

water table — The upper limit of where groundwater permeates the ground.

wetlands — Areas containing much soil moisture.

xeric — Characterized by dry conditions; requiring only a small amount of moisture.

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#### Florida's water management districts



St. Johns River Water Management District P.O. Box 1429 Palatka, FL 32178-1429 (800) RALLY-22



South Florida Water Management District P.O. Box 24680 West Palm Beach, FL 33416-4680 (800) 432-2045



Southwest Florida Water Management District 2379 Broad Street Brooksville, FL 34609 (800) 423-1476



Northwest Florida Water Management District 81 Water Management Drive Havana, FL 32333 (850) 539-5999



Suwannee River Water Management District 9225 County Road 49 Live Oak, FL 32060 (800) 226-1066

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