

Native Ground Covers for South Florida¹

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Ground covers are low-growing plants that are used in the landscape to blanket an area of bare ground. Living vegetation provides a substantial cooling effect when water released through the leaves is evaporated. Temperatures over ground cover plants can be as much as 15°-25° F lower than temperatures over paved surfaces. Turf grass is probably the most widely used ground cover, but some studies suggest that the energy demands of lawns, including maintenance costs, are significantly high. Where foot traffic will be heavy, turf grass is still the best possible choice of ground cover. However, in areas where traffic will be minimal, alternative ground covers are available that require little upkeep once established, and that may be adaptable to a wider range of environmental conditions than turf.

South Florida's various plant communities contain a number of native species suitable for ground cover use. In recent years, interest in the use of native plants for Florida landscaping has greatly increased. Some of the reasons for this include the loss to development of natural areas in the state, coastal deterioration due to disturbance of native vegetation, and concern about water use to support exotic landscapes composed of introduced species,

some of which require considerably more irrigation than some native plants. The introduction of exotic plants that naturalize and, in some cases, outcompete native species, has become of great concern in various parts of Florida, and a great deal of money and resources are spent in efforts to eradicate such plant pests. Many counties are considering landscape ordinances that require a percentage of native plant materials be used in all future developments. Several have already implemented such ordinances. This will result in a need for wider availability of native plant materials. Landscape plant producers, landscape architects, and home gardeners in Florida need to become informed about, and prepared for, the production and cultural needs of this type of plant material.

Native plants are sometimes better adapted to Florida landscape conditions than many exotic species, and thus may require significantly less energy inputs such as fertilizer, water, and maintenance labor once they are established. This is especially true if the site conditions duplicate closely those experienced by a particular species in its natural environment. This is perhaps most critical in the harsh environments of the coastal strand, where excess salinity in the soil, air, and water can limit the

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choices of plant material. A sizable number of native species are well adapted to this environment and will outperform most exotic ground covers. Beach plum (*Scaevola plumieri*), sea lavender (*Mallotonia gnaphalodes*), sea oats (*Uniola paniculata*), and golden creeper (*Ernodea littoralis*) are four species of native ground cover useful for seaside landscaping.

Considering Site Factors

Careful consideration must be paid to the characteristics of the planting site when choosing native ground covers for landscaping. First, some concerns relating to the past history of the site must be answered.

What was the original vegetation of the area?

This knowledge will indicate which native plants will perform best on the site. Assuming that the answer to the next question is no, native species that once grew in a given location are likely to do best when replanted in comparison with species from very different types of native vegetation.

Have the native soil and hydrology been modified? During development, topsoil is often removed, and original drainage patterns disturbed. Fill soil of very different quality may have been brought in to replace the topsoil. If such is the case, it may be impossible to re-establish the same species that once grew on the site, or it may require a great deal of maintenance to do so.

Consider the present condition of the site. Does the site accumulate standing water? What is the soil type: muck, white sand, coral rock? Is the soil exposed to salt spray? Will the landscape plants have to be integrated with turf, and possibly be subjected to irrigation best suited to turf? All of these factors will influence a particular native species' performance in a landscape.

Establishing Native Ground Covers

Ground covers generally take two years to become established. Some species will require more or less time. During this period, a regular program of irrigation, fertilization, and weed control will ensure strong and rapid growth. A mulch will aid in water retention in new plantings, reduce weed competition,

and facilitate the spread of ground covers that root along their stems. Once established, many species will require only an occasional trimming to keep them tidy and within bounds. For further ground cover maintenance information, refer to ENH30, "Ground Covers for Florida Homes" available from your county cooperative extension office.

Obtaining Native Plants

Native plants should not be transplanted from the wild without the permission of the landowner, and never from public lands. In general, it is best to leave wild populations intact, unless the plants face destruction from development. Superior individuals in native populations should be identified where possible, and nursery stock propagated vegetatively or by seed from them. The advantage of seed over cutting propagation is that a degree of the genetic diversity of the species is maintained in cultivation.

How to Use the Selection Tables

The tables of native ground cover species suitable for use in south Florida will help in making the right choices for various landscape situations. The list is by no means a complete inventory of the subtropical or tropical ground cover species native to the state, but it is representative of those native ground covers that have proven themselves in the landscape, are available from nurseries, or are judged worthy of wider use and availability.

The tables are arranged alphabetically by scientific name, accompanied by one or more common names. Table 1 lists environmental needs such as soil pH and light requirements, as well as drought and salt tolerances.

Drought tolerance refers to south Florida conditions only and should be interpreted as follows: High - will not require supplemental irrigation *after* establishment; Medium - may require occasional irrigation during periods of unusual water stress; and Low - will require supplemental irrigation during periods of drought.

Salt tolerance should be interpreted as follows: High - will withstand direct salt spray and soil salinity; Medium - should be protected from direct

salt spray but will withstand moderate saline conditions; and Low - is sensitive to salt.

Under the category of *Hardiness Zone*, sub-tropical refers to the transitional area between central and tropical Florida where an occasional winter frost will occur. Tropical refers to southernmost mainland Florida and the Keys where winter frosts are rare to nonexistent. Before installing a large-scale landscape using native ground covers listed as tropical only, it is best to confer with your county cooperative extension agent about expected winter minimums in your area. If a particular species can be used in central and north Florida as well, this has been indicated.

Table 2 lists the same plants as Table 1, but details characteristics such as height, foliage color, flower color/season, and includes uses and notes for each plant.

Table 1. Native ground covers for south Florida - plant requirements.

Scientific Name	Common Name	Growth Rate	Soil pH	Hardiness Zone¹	Salt Tol.	Light Req.	Drought Tol.	Nutritional Req.
<i>Blechnum serrulatum</i>	Swamp fern	Fast	Acid	C, N, ST, T	Low	Low	Low	Med
<i>Borrichia arborescens</i>	Silver sea oxeeye	Slow	Wide range	ST, T	High	High	High	Low
<i>Canavalia maritima</i>	Beach bean	Fast	Wide range	ST, T	High	High	High	Low
<i>Chiococca pinetorum</i>	Pineland snowberry	Slow	Wide range	ST, T	Low	High	High	Low
<i>Condradina grandiflora</i>	Condradina	Fast	Acid	C, ST	Low	High	High	Low
<i>Crinum americanum</i>	String lily, swamp lily	Medium	Wide range	C, N, ST, T	Med	Med	Med	Med
<i>Crossopetalum ilicifolium</i>	Christmas berry	Medium	Wide range	ST, T	Low	High	High	Med
<i>Distichlis spicata</i>	Seashore saltgrass	Fast	Wide range	C, N, ST, T	High	High	High	Low
<i>Dyschoriste oblongifolia</i>	Twinflower	Fast	Wide range	C, N, ST, T	Low	High	High	Med
<i>Ernodea littoralis</i>	Golden creeper	Medium	Wide range	ST, T	High	High	High	Low
<i>Gaillardia pulchella</i>	Blanket flower	Fast	Wide range	C, N, ST, T	High	High	High	Low
<i>Helianthus debilis</i>	Beach sunflower	Fast	Wide range	C, N, ST	High	High	High	Low
<i>Hymenocallis floridana</i>	Spider lily	Med	Wide range	C, N, ST, T	Low	Med	Low	Med
<i>Hymenocallis latifolia</i>	Spider lily	Fast	Wide range	C, ST, T	High	Med	High	Med
<i>Hymenocallis palmeri</i>	Alligator lily	Med	Acid	ST, T	Low	High	Med	Med
<i>Ilex vomitoria</i> 'Schellings Dwarf'	Dwarf yaupon holly	Med	Wide range	C, N, ST	High	High	Med	Med
<i>Ipomoea pescaprae</i>	Railroad vine	Fast	Wide range	ST, T	High	High	High	Low
<i>Ipomoea stolonifera</i>	Fiddle-leaf morning glory, beach morning glory	Fast	Wide range	C, N, ST, T	High	High	High	Low
<i>Iva imbricata</i>	Seacoast beach elder	Fast	Alkaline	C, N, ST	High	High	High	Low
<i>Lantana ovatifolia</i> var. <i>reclinata</i>	Dwarf lantana	Med	Wide range	C, ST, T	Med	High	High	Low

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Scientific Name	Common Name	Growth Rate	Soil pH	Hardiness Zone¹	Salt Tol.	Light Req.	Drought Tol.	Nutritional Req.
<i>Licania michauxii</i>	Gopher apple	Med	Wide range	C, N, ST	High	High	High	Low
<i>Lippia modiflora</i>	Matchweed	Fast	Wide range	C, N, ST, T	High	High	High	Low
<i>Mallotonia gnaphalodes</i>	Sea lavender	Slow	Wide range	C, ST, T	High	High	High	Low
<i>Nephrolepis biserrata</i>	Giant sword fern	Fast	Acid	ST, T	Low	Low	Low	Med
<i>Ohenia hypogaea</i>	Beach peanut	Med	Wide	ST, T	High	High	High	Low
<i>Oplismenus setarius</i>	Basket grass	Fast	Acid	C, N, ST, T	Low	Low	Med	Med
<i>Panicum amarum</i>	Beach panic grass	Med	Wide range	C, N, ST, T		High	High	Med
<i>Peporomia obtusifolia</i>	Baby rubber plant	Med	Wide range	ST, T	L	Low	High	Med
<i>Satureja rigida</i>	Pennyroyal	Med	Acid	C, ST, T	Low	High	High	Low
<i>Scaevola plumieri</i>	Inkberry	Slow	Wide range	C, ST, T	High	High	High	Low
<i>Serenoa repens</i>	Saw palmetto	Slow	Wide range	C, N, ST, T	High	Med	High	Low
<i>Sesuvium portulacastrum</i>	Sea purslane	Med	Wide range	C, N, ST, T	High	High	High	Low
<i>Tradescantia ohimensis</i>	Spiderwort	Fast	Wide range	C, N, ST, T	Med	High	Med	Med
<i>Uniola paniculata</i>	Sea oats	Med	Wide range	C, N, ST, T	High	High	High	Low
<i>Urechites lutea</i>	Wild allamanda	Med	Wide range	ST, T	Med	Med	High	Med
<i>Vaccinium myrsinites</i>	Shiny blueberry	Slow	Acid	C, N, ST	Low	Med	High	Low
<i>Verbena maritima</i>	Beach verbena	Fast	Wide range	ST, T	High	High	High	Low
<i>Yucca filamentosa</i>	Bear grass	Med	Wide range	C, N, ST	High	High	High	Med
<i>Zamia pumila</i>	Contie	Slow	Wide range	C, N, ST, T	High	Med	High	Low

¹**Hardiness zone:** C = central, N = north, ST = subtropical, T = tropical

Table 2. Native ground covers for south Florida - plant characteristics.

Scientific Name	Common Name	Height (feet)	Plant Type	Foliage Color	Flower Color	Flower Characteristic	Flower Season ¹
<i>Blechnum serrulatum</i>	Swamp fern	2-4	Herbaceous	Green	No flowers	No flowers	No flowers
Uses: Under trees.							
Notes: Tolerates most sites.							
<i>Borrchia arborescens</i>	Silver sea oxeye	2-4	Woody	Silver, silver-green, green	Yellow	Showy	Sp, Su
Uses: Banks and slopes, seashores, open areas.							
Notes: A green species (<i>B. frutescens</i>) is also available.							
<i>Canavalia maritima</i>	Beach bean	.5-1	Herbaceous	Green	Purple	Showy	Year round
Uses: Seashores.							
Notes: A widespread, vining shore plant.							
<i>Chiococca pinetorum</i>	Pineland snowberry	2-3	Woody	Green	White, purple-white	Insignificant	Year round
Uses: Banks and slopes, open areas.							
Notes: A vining shrub.							
<i>Condradina grandiflora</i>	Condradina	1-3	Herbaceous	Green	Blue	Showy	Year round
Uses: Banks and slopes, open areas.							
Notes: Needs good drainage. Plant close together for best cover. Other species native.							
<i>Crinum americanum</i>	String lily, swamp lily	1-2	Bulb	Green	White	Showy, fragrant	Sp, Su, F
Uses: Banks and slopes, open areas, under trees.							
Notes: Spreads best in wet areas. Takes flooding.							
<i>Crossopetalum ilicifolium</i>	Christmas berry	1-2	Woody	Green	Red	Insignificant	Year round
Uses: Banks and slopes, open areas.							
Notes: Attractive red fruit. Spiny leaves.							
<i>Distichlis spicata</i>	Seashore saltgrass	.25-.5	Herbaceous	Green	Green	Insignificant	Year round
Uses: Banks and slopes, seashores, open areas, under trees.							
Notes: Useful on wet, saline soils.							
<i>Dyschoriste oblongifolia</i>	Twinflower	.5-1.5	Herbaceous	Green	Blue, purple	Showy	Year round
Uses: Open areas.							

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Notes: Var. <i>angusta</i> more common. Plant close together for best cover.							
<i>Ernodea littoralis</i>	Golden creeper	1-3	Woody	Yellow-green	Pink	Insignificant	Year round
Uses: Banks and slopes, seashores, open areas.							
Notes: Drought resistant. Excellent sand-binder.							
<i>Gaillardia pulchella</i>	Blanket flower	1-1.5	Herbaceous	Gray-green	Red, yellow	Showy	Year round
Uses: Banks and slopes, seashores, open areas.							
Notes: Short-lived, but will naturalize from seed.							
<i>Helianthus debilis</i>	Beach sunflower	1-2	Herbaceous	Green	Yellow	Showy	Year round
Uses: Banks and slopes, seashores, open areas.							
Notes: Prefers sandy, coastal areas.							
<i>Hymenocallis floridana</i>	Spider lily	1-2	Bulb	Green	White	Showy, fragrant	Su
Uses: Open areas.							
Notes: Wide-ranging and variable throughout the state; often aquatic.							
<i>Hymenocallis latifolia</i>	Spider lily	1-3	Bulb	Green	White	Showy, fragrant	Su
Uses: Banks and slopes, open areas, under trees.							
Notes: Forms large clumps in time. Seeds readily.							
<i>Hymenocallis palmeri</i>	Alligator lily	1	Bulb	Green	White, green	Showy, fragrant	Su
Uses: Open areas.							
Notes: Mass for best effect.							
<i>Ilex vomitoria</i> 'Schellings Dwarf'	Dwarf yaupon holly	1-3	Woody	Green	White	Insignificant	Sp
Uses: Seashores, open areas, under trees.							
Notes: Extremely compact form of the species. New foliage is red.							
<i>Ipomoea pescaprae</i>	Railroad vine	.3-6	Herbaceous	Green	Purple	Showy	Su, F
Uses: Banks and slopes, seashores, open areas.							
Notes: A vine well adapted to beaches and coastal dunes.							
<i>Ipomoea stolonifera</i>	Fiddle-leaf morning glory, beach morning glory	.5	Herbaceous	Green	White	Showy	Sp, Su, F

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Scientific Name	Common Name	Height (feet)	Plant Type	Foliage Color	Flower Color	Flower Characteristic	Flower Season ¹
Uses: Seasides.							
Notes: Excellent sand binder for dune stabilization.							
<i>Iva imbricata</i>	Seacoast beach elder	1-3	Woody	Green	Green	Insignificant	Sp, Su
Uses: Seasides.							
Notes: Sand binder. Roots along stems.							
<i>Lantana ovatifolia</i> var. <i>reclinata</i>	Dwarf lantana	.7	Herbaceous	Green	Yellow, orange, red	Showy	Year round
Uses: Banks and slopes, open areas.							
Notes: Drought tolerant. Poisonous.							
<i>Licania michauxii</i>	Gopher apple	.3-1	Woody	Green	Green	Insignificant	Su
Uses: Banks and slopes, seashores, open areas.							
Notes: Difficult to transplant.							
<i>Lippia modiflora</i>	Matchweed	.3	Herbaceous	Green	Pink	Insignificant	Year round
Uses: Banks and slopes, seashores, open areas, under trees, edges.							
Notes: Generally considered a weed. Tolerates foot traffic.							
<i>Mallotonia gnaphalodes</i>	Sea lavender	4-6	Woody	Silver-green	White	Insignificant	Year round
Uses: Seashores.							
Notes: Well-adapted for beach landscapes. Excellent sand binder.							
<i>Nephrolepis biserrata</i>	Giant sword fern	3-4	Herbaceous	Green	No flowers	No flowers	No flowers
Uses: Under trees.							
Notes: <i>N. exaltata</i> and <i>N. cordifolia</i> are introduced species.							
<i>Ohenia hypogaea</i>	Beach peanut	.5	Herbaceous	Green	Purple	Showy	Su
Uses: Seashores.							
Notes: An endangered prostrate herb. Annual, but reseeds when established.							
<i>Oplismenus setarius</i>	Basket grass	.2-.75	Herbaceous	Green	White	Insignificant	Sp
Uses: Under trees.							
Notes: Mixes well with St. Augustinegrass in shady areas. Can be mowed.							
<i>Panicum amarum</i>	Beach panic grass	1-2	Herbaceous	Green	Green	Insignificant	Sp, Su

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Scientific Name	Common Name	Height (feet)	Plant Type	Foliage Color	Flower Color	Flower Characteristic	Flower Season ¹
Uses: Seasides.							
Notes: Coastal dune grass. Sand binder.							
<i>Peporomia obtusifolia</i>	Baby rubber plant	1-1.5	Herbaceous	Green, red-green	Green	Insignificant	Su
Uses: Under trees, edges.							
Notes: Excellent ground cover for shady areas. Damaged by foot traffic.							
<i>Satureja rigida</i>	Pennyroyal	.5-2	Herbaceous	Green	Purple	Showy	Year round
Uses: Banks and slopes, open areas.							
Notes: Good drainage necessary.							
<i>Scaevola plumieri</i>	Inkberry	1-6	Woody	Green	White	Insignificant	Su
Uses: Seasides.							
Notes: Sprawling shrub is excellent for beach plantings.							
<i>Serenoa repens</i>	Saw palmetto	4-8	Woody	Green, blue-green	White	Insignificant	Su
Uses: Banks and slopes, open areas, seashores, under trees.							
Notes: Slow growing. Does not transplant easily from the wild.							
<i>Sesuvium portulacastrum</i>	Sea purslane	1-1.5	Herbaceous	Green	Pink	Showy	Year round
Uses: Seasides.							
Notes: A common sea strand plant.							
<i>Tradescantia ohimensis</i>	Spiderwort	1-2	Herbaceous	Green	Blue, purple	Showy	Sp, Su
Uses: Banks and slopes, open areas.							
Notes: Showy flowers last one day each. Sometimes considered weedy.							
<i>Uniola paniculata</i>	Sea oats	3-5	Herbaceous	Green	White	Insignificant	Sp, Su
Uses: Seasides.							
Notes: Endangered species for beach planting. Best dune stabilizer.							
<i>Urechites lutea</i>	Wild allamanda	1-2	Woody	Green	Yellow	Showy	Year round
Uses: Seasides, open areas.							
Notes: Yellow allameanda-like flowers.							
<i>Vaccinium myrsinites</i>	Shiny blueberry	1-2	Woody	Green	White, pink	Insignificant	Sp
Uses: Open areas, under pine trees.							
Notes: Prefers acid soil. Spreads by runners. Difficult to transplant.							

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Scientific Name	Common Name	Height (feet)	Plant Type	Foliage Color	Flower Color	Flower Characteristic	Flower Season ¹
<i>Verbena maritima</i>	Beach verbena	.5-1	Herbaceous	Green	Purple	Showy	Year round
Uses: Seasides, open areas.							
Notes: Good sand binder.							
<i>Yucca filamentosa</i>	Bear grass	1-2	Woody	Green	White	Showy	Sp, Su, F
Uses: Open areas, under trees.							
Notes: Tough, but coarse-textured.							
<i>Zamia pumila</i>	Contie	1-3	Woody	Green	No flowers	No flowers	No flowers
Uses: Banks and slopes, seashores, open areas, under trees, edges.							
Notes: Palm-like cycad. Cannot be sheared or mowed.							
¹ Flower Season: Sp = spring, Su = summer, F = fall, W = winter							