

## **A WORD OR TWO ABOUT GARDENING**

### **Groundcover for open, sunny, natural landscapes.**

Groundcover is a functional term which, as the name implies, describes plants whose primary role in the landscape is to cover open ground. Those with either creeping or clumping growth habits (e.g., turf grass) are most often thought of as useful for this purpose; however other low growing plants are also used. One of the first articles to appear in this column discussed the pros and cons of turf grass. At that time it was suggested that in the absence of foot traffic there were other groundcovers that might be a better choice in open sunny areas. This is particularly true when landscaping the two natural areas, ocean front properties or pineland, featured in the present article.

Beach front locations offer one of the most challenging sites to landscape where plants selected must be able to withstand both strong winds and salt. The latter can be either in the form of saline soils and/or direct salt spray or, if somewhat further inland, salt laden winds. Groundcovers can be especially important to beach front properties as they help to stabilize dunes and bind soil. One of the most commonly used plants for this purpose, sea oats (*Uniola paniculata*), is a clumping grass growing to 3-4' from an underground rhizome. Mass plantings are most pleasing, the tall feathery flower heads perfectly accentuating the relaxed ambience of the seaside as they sway in the breeze. Although tolerant of constant salt laden winds sea oats should be planted clear of ocean spray or areas liable to inundation with sea water. It is best planted in sandy soil and once established requires neither water nor fertilizer. Sea oats is protected in Florida (this includes a prohibition on collecting flower heads or seeds), but plants are available from area native plant nurseries.

For wet marshy coastal sites, or beach front that is regularly inundated with sea water, salt grass (*Distichlis spicata*) is better adapted – it will not survive prolonged drought conditions. Salt grass is rhizomatous, producing short stems with the blades arranged in a striking fishbone pattern. Seashore dropseed (*Sporobolus virginicus*) is also suitable for frontline planting, surviving inundation, ocean spray and direct exposure to wind, though with limited drought tolerance. While on the topic of salt tolerant grass, if you are considering laying turf at a beach front property, seashore paspalum is a fairly recent introduction that is highly tolerant of saline water and salt spray. However like any other turf grass it requires proper maintenance to remain attractive. This includes frequent mowing, preferably with a reel mower which could be a problem for many homeowners. Contact the Miami-Dade County Extension Office for more information.

Other than grasses there are excellent alternative groundcovers for use in frontline beach properties, several being some of south Florida's showiest native plants. One of the most striking is the railroad vine (*Ipomoea pes-caprae*), a fast growing herbaceous plant producing prostrate stems that will rapidly cover bare sand. Stems grow to more than 25' bearing fleshy, rounded, emarginate leaves the shape, like

that of an orchid tree, resembling a cloven hoof. The specific epithet 'pes-caprae' means goat's foot. Most striking are the mauve to reddish purple, funnel shaped flowers produced year round. A related plant, the beach morning glory (*Ipomoea imperati*), is also useful for beach front planting (withstands salt spray). It exhibits a similar growth habit, having prostrate stems that root at the nodes. The leaves are also lobed (lyrate), but the flowers salverform, white with a yellow throat. Another excellent choice for controlling ocean front soil erosion is the beach bean, *Canavalia maritima*, with mauve to purple pea-like flowers and trifoliate leaves, again on very long trailing stems (up to 40'). This is an extremely vigorous plant best suited to open areas and kept away from other vegetation – it will climb into shrubs and cover fences. Like other legumes it is able to fix nitrogen and helps to improve the fertility of sandy soil.

Less rampant but well able to withstand direct exposure to sea water and salt spray is sea purslane (*Sesuvium portulacastrum*), a member of the Aizoaceae (ice plants) and only distantly related to true purslane (Portulaca). The fleshy much branched stems are tinged red and creep along the ground rooting at the nodes. They bear many small, linear to oblong succulent leaves and short lived pinkish mauve flowers, which are produced year round. Although excellent at binding dunes, sea purslane will not survive if covered with wind blown sand, and is best used in a site protected from strong winds. The Hottentot fig (*Carpobrotus edulis*) is a closely related non-native plant that is widely used to stabilize sandy soil. The stems grow to 6' with succulent, sickle shaped, three-sided leaves and bear large yellow daisy-like flowers. Extensively used in California to counter coastal soil erosion, it is now recognized as invasive forming large impenetrable mats. At present *Carpobrotus* spp. are not recorded as being either invasive or potentially invasive in Florida.

There are several groundcovers with a more shrubby appearance that are appropriate for coastal locations. Beach elder (*Iva imbricata*) is a low growing much-branched herbaceous perennial (to about 2') that roots along its' somewhat decumbent stems. The leaves are small and fleshy, the flowers insignificant, but it gives good coverage, is excellent for binding soil and spreads rapidly without becoming invasive. Beach elder also adapts well to alkaline soils, and can withstand exposure to salt spray. Further inland away from direct salt spray, inkberry (*Scaevola plumieri*) is a slower growing sprawling shrub (to 3-4') with small round fleshy leaves clustered at the branch tips. The pinkish white flowers have a distinctive fan shape and are followed by numerous conspicuous black fruits (drupes). Inkberry should not be confused with beach naupaka (*S. taccada* var. *sericea*) introduced from Hawaii, where it is commonly in ocean front landscapes. This is a taller plant with larger leaves and white fruit which is currently listed as a class one invasive plant in Florida and controlled in Miami-Dade.

One final beach front groundcover, beach/golden creeper (*Ernodea littoralis*) is a low growing shrubby plant with a woody base from which grow spreading reddish tinged stems that root where they touch the ground. Toward the stem tips are found numerous small, linear to narrowly oblanceolate, leathery leaves that are a shiny light green. The flowers are tubular, white inside deep pink outside with reflexed

curling lobes and are followed by attractive golden yellow fruit. Beach creeper will succeed well inland providing the site is free draining and in full sun and can be used as a groundcover for natural landscaping projects such as pineland restoration.

Before discussing pineland groundcovers, a few points about planting the native Dade County slash pine (*Pinus elliotti* var. *densa*). Although quite easy to grow on sandy soils, the slash pine is more difficult to establish in areas of limestone. In addition, planting only one or two trees in the general landscape invariably leads to disappointing results - it is best to set aside an area where several slash pines can be grouped together. In doing so, choose an area where soil compaction will be minimal (no parked vehicles or frequent foot traffic) and well away from any planned construction projects. For further information on establishing Dade County pines request the publication 'Healthy Pines in Dade County' from the UF-IFAS/Miami-Dade County Extension Office.

In order to minimize future soil disturbance, which can stress pine trees, plant ground cover at the same time you install the Dade County pines. Turf grass is not a suitable ground cover for use with a stand of pine trees which require at most very light applications of fertilizer (occasional slow release or organic). Furthermore, since pine tree roots require the presence of mycorrhizal fungi in order to assure nutrient uptake, this precludes the use of fungicides to control any turf grass diseases. If you choose to use grass as a ground cover, choose a drought tolerant native species, such as purple love grass (*Eragrostis spectabilis*) or Florida gamma grass (*Tripasacum floridanum*) that survive with minimal use of fertilizers or supplemental water.

Apart from grasses, there other low growing plants suitable as ground cover for open pineland. Quail berry (*Crossopetalum illicifolium*) is ideal for this purpose slow growing, so it is easy to control, the prostrate stems spreading from a woody base with oval to ovate spiny margined leaves that resemble those of American holly. While the flowers are unremarkable, color is provided by the pinkish-red new growth and the conspicuous red berries produced throughout the year. Not as low growing but making an effective ground cover is pineland milkberry (*Chiococca parvifolia*, syn. *C. pinetorum*). The pointed 2" dark green leathery leaves effectively contrast with the racemes of mildly fragrant small white tubular flowers and the striking clusters of shiny white fruit. Some authorities describe two forms of the plant: one from coastal hammocks that readily climbs into surrounding trees and shrubs and the other from rock pineland that forms a 2-3' groundcover. Enquire at the nursery regarding the growth habits of the *C. parvifolia* specimens on offer.

For a truly showy groundcover choose the trailing pineland lantana (*Lantana depressa*) with small heads of buttery yellow flowers. Some plants offered for sale are hybridized forms with the non-native *L. camara* - *L. depressa* is endangered and threatened with extinction. Nematodes have been described as severely limiting the life span of pineland lantana to no more than 2 years, however this may be more of a problem on sandy soil rather than limestone. For more sunny yellow color, yellowtop (*Flaveria linearis*) is a herbaceous perennial, growing to about 2', with flat topped heads of yellow to orange-yellow small flowers, Although attractive in

bloom and easy to grow, old flower stems are best removed after blooming otherwise yellowtop can look unsightly.

In open pineland especially around the margins, the native porterweed, ***Stachytarpheta jamaicensis*** can add color with spikes of small blue to purple flowers. Growing to about 2' with a sprawling growth habit, the leaves are prominently veined with finely toothed margins. Do not confuse with the non-native porterweed, *S. urticifolia*, a larger more upright small shrub growing to 5'. Porterweed can outgrow its' bounds and needs to be kept under control. It is frequently used component of butterfly gardens, but other ground covers listed above will also attract butterflies as well as birds.

The groundcovers discussed above were chosen for use in two specific natural landscapes that experience full sun, where the need is not so much for showy ornamentals as in a more formal setting, but for plants that will readily adapt and blend in with each of these distinct environments. However some of these plants can be used more widely and are especially good choices for problem areas that experience full sun where there is thin soil or exposed limestone and an absence of irrigation. Golden creeper, inkberry, quail berry, purple love grass and native porter weed are all suitable. Make sure there is perfect drainage (do not enrich the soil), full sun and the site does not flood. Needless to say these plants should also be considered as groundcovers for local xeriscapes.

For smaller residential yards where the landscape is likely to have a more formal appearance the ornamental qualities of the groundcover, including form, texture and color become more important. For this reason exotic plants are more likely to be used which means exercising care since some exotic groundcovers can rapidly invade areas where they are not wanted. Most notorious in this respect is wedelia (*Sphagneticola trilobata*), widely used as a flowering groundcover in the past, it is now a controlled plant in Miami-Dade and must not be used within 500' of any natural plant community. Whatever is chosen it will have to be able to survive in open sunny areas with seasonally dry soil where irrigation may be absent or at best intermittent. There are many non-native ground covers that are well worth considering, and these will be considered in a future article. The issue isn't native or exotic but that now familiar axiom, the right plant in the right place.

Finally for those where shade is proving a challenge to growing turf grass the reader is directed to the publication 'Groundcovers for Shade: South Florida', available from the Miami-Dade County Extension Office.

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