A WORD OR TWO ABOUT GARDENING

Groundcover options in Miami-Dade for full sun locations

This is the third article in this column to address the topic of groundcovers for Miami-Dade landscapes. Most recently native groundcovers were reviewed for use in open full sun naturalistic landscapes. The present article is of more general interest, and discusses full sun/limited shade groundcovers for more traditional landscapes. The term groundcover is a purely functional one and what may be regarded as a suitable groundcover in one situation finds use as a bedding plant in another. For present purposes groundcovers are thought of as having some degree of permanency in contrast to bedding plants (e.g. winter/spring annuals such as verbenas and trailing petunias). Some perennials locally offered as groundcovers ('Blue Daze' and *Scaevola* 'Blue Wonder') usually struggle to survive through a hot wet Miami-Dade summer.

In planning a landscape groundcovers can function to fill in between adjacent accent plants or to frame/border a grouping of similar shrubs (e.g., a rose bed or hedge). As part of any planned landscape, they can form an important role in uniting the individual elements in a given section of the garden design. It is easiest to keep it simple, but if you decide to use a mixed groundcover use no more than two closely related plants having similar growth characteristics (e.g., white and purple trailing lantana). Rather than mixing colors and/or textures, adjacent areas can be planted in solid blocks to affect contrast and relieve monotony, especially n covering a large open expanse devoid of other landscape material. Although plants with a clumping and/or creeping habit are most often thought of as groundcovers, other low growing plants are also used for this purpose. For an informal but neat appearance choose a trailing/creeping groundcover, whereas a more formal stylized appearance can be created by selecting groundcovers having a more upright bushy growth habit.

Homeowners wishing to reduce the amount of high maintenance turf grass will be looking for alternative groundcovers which require less water, fertilizer, mowing and suffer fewer pest and disease problems. Groundcover use can be unplanned as when sudden changes occur (storm damage or removal of an unsafe tree) exposing previously shaded sections of the yard to full sun. Any existing groundcover (e.g., ferns, bromeliads) will then likely not survive. The resulting bare ground can be an open invitation for weeds. Mulching alone can be one quick solution, but don't forget the added ornamental interest created by using a groundcover for at least part of the newly exposed area. Many of the groundcovers described below have inherent ornamental value (showy flowers, attractive foliage) that can be reason alone to justify their landscape use.

Before installing a groundcover it is important to properly prepare the site. This means removing existing plants (especially weeds), as well as old tree/shrub roots, and loose rubble. It may be possible to hand pull weeds if there are not too many, otherwise use a contact herbicide such as Roundup or Spectracide Triple Strike that

have minimal soil activity (safe to plant after 7 days). If you have sufficient depth of soil, incorporate some garden compost or similar organic material into the top 6". Where this is not possible, e.g. on Miami limestone, a 1-2" layer of 50/50 sand/soil can be spread if installing a creeping groundcover (1-2cu yd per 100 sq ft).

After selecting a groundcover it should be planted as soon as possible after purchase – do not leave plants in containers to dry out or become root bound. Set out all of the plants while still in their containers, positioning them so that they are evenly spaced, with the recommended distance between each. For each plant you have set out dig a hole with sloping sides, 2-3x wider and no deeper than the root ball. A small mattock tiller can be useful when digging holes in rocky ground for plants in gallon or smaller containers. A 2" layer of mulch will help to suppress weeds (rake it back as the ground cover spreads). You can also use an approved pre-emergent herbicide to prevent any weed seeds from germinating, applying it first to bare soil. Even for a fast spreading groundcover the bare ground between individual plants can quickly become choked with weeds.

Unless otherwise indicated below apply a complete slow release 14/14/14 (N/P/K) fertilizer at the rate of 1½ lb per 100 sq ft in spring and again in early fall. Water in, washing any fertilizer pellets off the foliage. In late spring as the rainy season approaches thin out dense growth to improve air circulation thereby reducing the risk of disease. Cut back vigorous groundcovers to keep growth within bounds, paying particular attention to those sprawling/creeping groundcovers with a demonstrated proclivity for climbing into shrubs and smothering adjacent low growing bedding plants.

There are some familiar groundcovers that are controlled by statute as to where they can be used in Miami-Dade since they pose a potential invasive threat to certain natural areas. These plants include lantana (see below), oyster plant, wandering sailor and wedelia. Although not officially regarded as invasive there are other groundcovers requiring care being either weedy (seeds) or readily rooting from discarded stems. Note will be made of these latter in the following review of both familiar favorites and less familiar groundcovers worth investigating further.

Groundcovers that survive full sun conditions with minimal watering: Among these are several succulents such as aloe, bulbine, crown-of-thorns and baby sunrose. In addition to a full sun location **aloes** and the closely related **bulbines** require an airy site with coarse, sandy, free draining soil. Choose small clumping aloes (form offsets): apart from *Aloe vera* try using *A. dorotheae*, *A. cilaris*, *A. brevifolia*, *A saponaria* and *A*. 'Blue Elf'. All species produce showy winter/spring inflorescences (red, yellow or orange) on a tall often branched stem. Use inorganic mulch such as ½" Chattahoochee rock or Perma-Till raking it back as the clump expands and hand pulling any weeds as they appear. In spring make a light application of a slow release fertilizer such as an 8/2/12 palm special fertilizer around the base of the clump. Water may be required during hot dry weather (often indicated by a tip burn to leaves) with little or none during cool days of winter.

Bulbines are relatively new to Florida, *Bulbine frutescens* being selected as one of the Florida Nursery Growers (FNGLA) 2006 plants of the year. It is a clumping plant but unlike aloe spreads by mean of an underground rhizome. The foliage

resembles more the thin linear leaves of grass aloes rather than the rosette of thick fleshy lanceolate leaves of the stemless /single stemmed aloes discussed above. Instead of forming a rosette, *B. frutescens* leaves are juxtaposed in two ranks (distichous). From spring into summer tall stems appear, each bearing a cone-shaped inflorescence of small yellow star shaped flowers (the cv 'Hallmark' has orange flowers).

More familiar as succulent groundcovers are the dwarf cultivars of *Euphorbia milii* (**crown-of-thorns**), particularly **'Short and Sweet'™**. Growing to 12" tall (usually less) and spreading up to 24", the stems are slender much branched (making for dense growth) and covered in numerous thin spines. Bright green leaves are spirally arranged toward stem tips with clusters of small rudimentary yellow flowers subtended by showy orangey red bracts. Plant 15' o.c. in a gritty free draining soil, where there is excellent air circulation. Provide supplemental water only during extended periods of hot dry weather once leaf drop is noted. Use an inorganic mulch to permit rapid drying at the soil line. '**Mini Bell'** is a very compact cultivar (to 12") with tiny red leaves and bracts, '**Atlas**' and '**Dinni**' recent introductions with more upright growth have yellow/peach and pale yellow bracts respectively.

Baby sun rose (*Aptenia cordifolia*) has a woody base from which prostrate freely branching stems grow bearing fleshy lance to heart shaped leaves and daisy like flowers with numerous purplish red petals. Well adapted to coastal situations, it thrives on infertile sandy soils and has naturalized in at least one area of south Florida (St. Lucie County). This is a fast growing groundcover that gives rapid coverage and where rainfall follows an extended period of hot dry weather growth can be especially rampant. Under ideal conditions, i.e. coastal areas, baby sun rose can quickly overwhelm surrounding plants if not controlled (stem pieces readily take root). Inland it is more likely to succumb to stem and root rots unless grown in an open sunny area with soil that dries rapidly. The cultivar '**Red Apple'** is most widely grown, spaced 3' o.c., while the less vigorous cv. '**Variegata**' can be spaced 24" o.c.

Non-succulent drought tolerant woody shrubs include a few that can be used as groundcover, being best suited to areas where only limited coverage is required. **Bougainvilleas** have been used more widely as groundcovers in southern California where the robust vining types are particular useful on steep slopes. Apart from highway ramps there is of course little sloping terrain in south Florida! More appropriate for local use are bushy dwarf/miniature cultivars such as '**Rosenka**' (2-3' spreading to 6', orange bracts fading to pink), the smaller more compact '**Pink Pixie**' (spreading to 4', deep pink bracts, similar if not identical to '**Hawaiian Torch'**) and '**Helen Johnson'** (a truly dwarf selection with fuschia bracts, no more than 18" tall spreading to 3'). Plant the first two 2-3' o.c. and Helen Johnson 12 – 18" o.c.

There are several low growing/dwarf cultivars of one of my personal favorite south Florida landscape shrubs **Natal plum**, *Carissa macrocarpa*, that can be used as groundcovers. Low growing spreading cultivars include '**Emerald Blanket'** and '**Green Carpet**' (both growing to 18" with a 3' spread, the latter with smaller leaves) as well as the more dense rounded '**Horizontalis**' (spreading to 24") and '**Minima**' with small leaves and flowers. Space the above at 12-18" o.c., while the larger rounded, but still dwarf cultivars such as the thornless '**Tomlinson**' can be set about

5' o.c. *Carissa* is an ideal choice for both full sun coastal and inland landscapes and can tolerate some afternoon shade providing soil is free draining.

Mexican heather (*Cuphea hyssopifolia*) is a compact sub-shrub that has long been popular as a bedding/border plant but is also useful as a groundcover where extensive coverage is not required (e.g., base of a flag pole, garden ornament or parking lot dividers). While *C. hyssopifolia* is indigenous to Mexico it is certainly not a heather, but in the same plant family as crepe myrtle (Lythraceae). The wiry branched stems bear numerous small almost sessile lanceolate leaves. Flowers are terminal, small, tubular and vary in color depending on the cultivar: '**Compacta**' violet flowers tighter growth than species; '**Aurea**' light yellowish green foliage and lavender flowers (several other cultivars with variegated foliage are available); '**Allyson'** larger leaves more floriferous (deep violet) and the dwarf '**Mongi**' with lilac flowers. For color contrast, use with one of the white flowered cultivars such as the familiar '**Alba**', or the more compact '**White Whispers'** or '**Desert Snow'**. Cupheas require a light fast draining soil, full sun and good air circulation to prevent excessive build up of moisture (thin out growth particularly before summer rainy season).

Cultivars of an unusual acacia from Western Australia have found widespread use as a fast growing ground cover in arid areas of the SW United States. *Acacia redolens* **(trailing acaia**) cultivars '**Low Boy'** and **'Desert Carpet'™** grow no more than 12 – 24" in height but form a dense 12-14' olive green canopy (phyllodes not true leaves). It is adapted to both limestone and sand, tolerates salt, is extremely drought tolerant but has also been found to withstand brief inundation. It would appear worth trying in south Florida for open full sun locations - there are no published records of the above *A. redolens* cultivars becoming invasive. Locally fall would seem a good time for installing this groundcover, the relative lack of rain until late spring would lessen weed problems as it becomes established (*A.redolens* is cold hardy to 20ºF).

Less drought tolerant and accepting some light shade, ***Ficus microcarpa* 'Green Island'** unlike many other *Ficus* sp. is non invasive, slowly growing into a low ground hugging shrub. Suitable where only limited coverage is needed (such as under open canopy of a small group of palms) alone or as part of a mixed ground cover (e.g., with *Carissa* 'Tomlinson'). Plant at 2' o.c., mulch with pine bark nuggets and once established water only when the top 1-2" of soil becomes dry. Prune to maintain a height of about 1-2' and pinch side stems to encourage lateral branching.

Trailing lantana (*Lantana montevidensis*) is a low growing sprawling shrubby plant that adds muted but still showy color to the landscape. Normally growing to no more than 18", the flexible much branched stems spread to about 4'. Stems are covered with stiff hairs, bear deep green, coarsely toothed, somewhat wrinkled leaves and small rounded flowerheads of pinkish lilac to violet flowers. The cultivar 'Alba' has chalk white flowers. Trailing lantana is non-invasive though resilient groundcover (often seen in parking areas) though appearance is improved if irrigated during hot dry weather. *Lantana camara* (common lantana) is somewhat more drought tolerant but highly undesirable since it is so invasive. There are however several sterile hybrids (most involving crosses with *L. montevidensis*) that can be

recommended for groundcover use. Most widely used at present is '**Gold Mound'** (very floriferous, golden yellow flowers) but others such as the **'Patriot' series** and '**New Gold**' should also be considered.

Clumping and creeping groundcovers spread by prostrate rooting stems and/or underground rhizomes. While often thought of for use in covering large open areas (turf grass is the most obvious example), some are ideal for filling in small sections of the landscape. For example the diminutive **trailing chenille plant**, *Acalypha reptans* var. *pygmae*, not only helps to suppress weeds but adds some cheery color to the landscape. The sprawling stems bear small bright green leaves with toothed margins that contrast perfectly with the numerous red catkin like flower spikes. Space at 15 – 20" o.c. in a gritty soil and water as required to maintain soil moisture – trailing chenille plant can take some take some light shade in which case water less. Since only plants with pistillate flowers (female) are cultivated there is little risk of trailing chenille becoming invasive. For rapidly covering large expanses **Ganges primrose** (*Asystasia gangetica*) is a fast spreading sprawling plant with lavender to pale blue petunia like flowers. On the positive side it is drought tolerant, well adapted to local alkaline soils and can be grown in either full sun or part shade. The two most serious drawbacks are its penchant for climbing into shrubs and fences plus unwanted spread through carelessly discarded stem pieces which readily root. If you use Ganges primrose it must be regularly cut back to stay within bounds and care taken in removing and disposing of cut stems.

A better choice for covering large areas and a low maintenance alternative to turf grass is **perennial peanut** (*Arachis glabrata*). Growing from a woody tap root, it spreads by means of a thick mat of fleshy rhizomes from which arise decumbent stems bearing compound leaves (four spear shaped leaflets) and tubular yellow flowers. Although ideally suited to slightly acid sandy soils it can be grown on Miami limestone, nutritional supplements being applied to correct any yellowing due to trace element deficiencies. Unlike turf grass there is no need to use nitrogen containing fertilizers (like many other leguminous plants, perennial peanut is able to fix atmospheric nitrogen). Provide potassium and magnesium (e.g., Sul-Po-Mag) 2-3xs per year plus a top dressing of elemental sulfur. On local rocky soils spread a 1-2" layer of topsoil then space 1 gallon container plants at 15" o.c. Several cultivars are available including 'Arblick', 'Ecoturf' and 'Needlepoint'. For the first year it is important to irrigate as needed to maintain soil moisture. Thereafter supplemental water should only be required during periods of prolonged dry weather. The other challenge is controlling competition from weeds while perennial peanut spreads to cover bare ground. Apart from control by hand pulling or mowing, there are a few approved herbicides that can be used that currently include: fluazifop (grassy weeds) and bentazon (some broad leaf weeds and yellow nut sedge). Once established, perennial peanut will effectively crowd out weeds. During the summer mow about every 3 weeks (a cutting height of 1½" for a turf like appearance) and rake out the cut stems. There is no evidence of perennial peanut becoming weedy as little viable seed is produced. Cut stems will root but spread slowly.

Confederate jasmine (*Trachelospermum jasminoides*) is a familiar sprawling, flowering groundcover that can be used in full sun or moderate shade - in full sun

locations it will require more frequent watering. Not a true jasmine (flowers have corolla lobes which are slightly twisted), it has long thin stems, dark green shiny leaves and numerous small, fragrant white flowers. Full sun for at least part of the day is necessary for good flowering. Although not growing as rampantly as Ganges primrose it will climb into adjacent shrubs. Keep trimmed at regular intervals to confine growth – cutting back into old growth will reduce flowering. **Small leaf jasmine** (*T. asiaticum*) has hairier stems and smaller yellow flowers (flowering infrequent if occurs at all when grown prostrate as a groundcover), but is much less likely to climb into shrubs and fences. In addition the stems branch more frequently to produce a dense weed proof mat. Set out small leaf jasmine 12-18" o.c. and once established water as top 1" of soil dries out. Apply a nutritional supplement to correct for trace element deficiencies.

Common lily turf (*Liriope muscari*), admired for clumps of attractive grassy foliage, is one of the more familiar groundcovers found in southern landscapes. Despite the name it is neither a grass nor lily but in a family of plants (Ruscaceae) that includes dracaenas and ponytail trees. Although exhibiting some drought tolerance, liriope looks most attractive when the soil is not allowed to become dry (moist not wet soil). In Miami-Dade provision need be made for irrigation if it is used in an area receiving day long, full sun. Mulching can help retain soil moisture as well as suppressing weeds. Soils that become soggy pose an increased risk of crown and root rots and where foliage remains wet leaf spots (anthracnose) can develop – water early in the day to allow foliage to dry. Try types with superior tolerance of full sun such as 'Big Blue', otherwise liriope is best used locally where there is some shade for part of the day. Especially useful for limited coverage where light exposure can change from full sun to deep shade during the course of a day (in the lea of a north-south wall or tall hedge). Plant 6-8" o.c. – improve local rocky soils with added organic matter.

Wild iris (*Dietes bicolor* is a clumping groundcover, that is well adapted to full sun and exhibits good drought tolerance (though looking better if soil is not allowed to dry out during hot dry weather). Spread is by means of an underground rhizome from which fan like clumps of 2' leathery sword shaped leaves arise. Somewhat ephemeral but attractive yellow flowers are borne in clusters on erect 3' stalks, appearing on and off throughout the year. Space 18 -24" o.c. and water until estrablished. If you fancy a flowering groundcover with less coarse foliage and spectacular flowers, there are **day lilies** available specifically bred to survive conditions in south Florida. Once established day lilies will survive with little water, though they should be irrigated during hot dry weather when flowering. Pet owners beware – day lilies are poisonous to cats. For the rest of us consider day lilies, they are underutilized in Miami-Dade landscapes and surprisingly economical.

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