

A Few Words About Gardening

If not grass then what?

One of the most important types of landscaping plants is a loose grouping of usually low growing plants referred to as groundcovers. By far and away the most widely grown of these groundcovers belong to one of the largest botanical families, the Gramineae. They are the cause of more hand wringing, muttered expletives and financial loss than any other item that makes up the typical residential landscape. I refer of course to turf grass, and this article will examine its place in the landscape, and when and where it may be more appropriate to choose a different ground cover.

It must be stated at the outset that grass is the most widely used ground cover for many sound reasons. As a rule it withstands foot traffic, is amenable to mowing, provides rapid coverage, excludes weeds and stays green (with correct maintenance). The disadvantages mainly involve the high cost of maintenance, both financial and to the environment, if we are to have a uniform expanse of brilliant green, evenly manicured grass. We can lessen many problems by adopting a low maintenance approach to managing home lawns (contact the Miami-Dade Extension Office for publications). The grass may contain just a few more weeds and not be quite as green, but it will be neat, attractive, and healthy. Apart from reviewing cultural practices in maintaining turf grass, a more radical solution involves re-thinking its role as the focal point of your landscape design.

For those contemplating changes to their landscape, consider your options when deciding how much of the yard needs to be devoted to growing grass. In areas that are not used for recreational purposes, and where foot traffic is minimal, there are other ground covers that may be more appropriate. Some of these will provide a dense mat of cover. For instance look for the native golden creeper (*Ernodea littoralis*), a drought proof plant for full sun that adapts well to poor, sandy or rocky soil and is highly tolerant of salt. For full sun areas that do not flood, baby sun rose (*Aptenia cordifolia*) will provide ground cover with the bonus of attractive flowers, as will the improved varieties of purslane (*Portulacca oleoraceae*) or the dwarf wild petunia, *Ruelia brittonia* 'Katie'. There are many attractive varieties of Madagascar periwinkle (*Catharanthus roseus*), all of which thrive in full sun and poor soil with little attention. Another widely used groundcover, Mexican heather (*Cuphea hyssopifolia*) is also suited to full sun and gives good ground coverage but is not drought tolerant.

There are many varieties of liriopie (*Liriopie muscari* - lily turf) that provide a grass like texture and are useful where there is some shade; creeping liriopie (*Liriopie spicata*) gives faster cover, but is will definitely not tolerate full sun in Miami-Dade. Fakahatchee grass (*Tripascum dactyloides*) is a highly drought tolerant, clump forming grass native to Florida useful in providing a more informal aspect to the landscape. For a finer textured ornamental grass, native muhly grass (*Muhlenbergia capillaries*) offers delicate purplish red blooms as a bonus. A more substantial plant with stiffer grass like leaves, *Dietes spp.* (African Iris, yellow morea) also produces attractive spikes of yellow

flowers for much of the year. African iris spreads by underground stems (rhizome), and will require occasional watering during dry weather.

Low growing shrubs such as the miniature/dwarf bougainvilleas (varieties such as 'Helen Johnson' or 'Pink Pixie') can provide attractive ground cover, as can dwarf varieties of Natal plum, *Carissa macrocarpa*, (e.g. Boxwood beauty or Emerald Blanket). Somewhat larger mounding shrubs can be used including the excellent, slow growing Ficus 'Green Island', a non-invasive species that can take partial shade. These are low maintenance plants that once established should require little attention, and apart from the Ficus all are drought tolerant. Even if any of these ground covers need to be replaced the cost will be less than renovating turf grass. Many other ground covers will be found in the University of Florida Extension publication 'Ground Covers for South Florida' (<http://edis.ifas.ufl.edu/EH139>).

Compared to most US urban areas, Miami-Dade suffers from a lack of tree cover. Serious consideration should be given to planting shade, flowering and/or fruit trees in those parts of the yard where turf is not essential. In doing so the shade created can be beneficial in cooling the residence, and will present an opportunity to plant many of the interesting shade tolerant plants that can be grown in South Florida.

Usually however, shade is not a planned feature in a landscape and develops over time as trees and large shrubs develop canopy, with the first untoward consequence being the thinning of the surrounding turf. It is at this time that people start wondering about shade tolerant turf, rather than the opportunities for adding plants that prefer shade. There are indeed varieties of grass that exhibit some shade tolerance such as the semi-dwarf varieties of St. Augustine (e.g. Amerishade, 'Palmetto', 'Seville' and 'Jade'), or most varieties of zoysiagrass. Both of these alternatives have drawbacks: all of the semi-dwarf varieties of St. Augustine are more susceptible to chinch bug damage than the more familiar 'Floritam' variety, and zoysiagrass can be slow to establish, needs to be cut with a reel mower and is prone to develop thatch. Irrespective of these considerations, once full sun exposure falls below 4 hours per day (or day long dappled shade) growing any type of turf grass becomes increasingly difficult. Under such conditions it is time to consider some alternative ground cover.

Many however engage in an ultimately futile struggle to overcome the effects of excessive shade. Two common mistakes that are made in an attempt to improve shaded turf are using increased amounts of water and/or fertilizer. Remember that neither of these tactics alleviates the principal limiting factor to growing grass, insufficient light. Excess water will only encourage disease problems and promote the development of tree roots closer to the surface, which will in turn compete with turf grass. Increased fertilizer nitrogen under shaded conditions depletes the grass of carbohydrates (energy source), weakening it further. Both fertilizer and watering should in fact be reduced. Water less often, but for longer periods of time and only as the grass first appears to be wilted. Apply half as much fertilizer nitrogen to shaded grass as compared to turf with full sun exposure.

There are some additional steps that can be taken to encourage grass to grow. Prune lower tree limbs, those up to 8' above ground, to allow more morning and afternoon sun to penetrate underneath the tree canopy. Do not root prune! This is sometimes attempted to ease mowing grass where surface roots have developed. If done incorrectly this can stress the tree, possibly affecting stability in a storm if larger roots are cut too close to the trunk. Mow shaded grass less often with the blades set higher (e.g. for St. Augustine 4" rather than the customary 2½ -3") so that there is more leaf blade area to catch the available light. Finally, reduce foot traffic on shaded grass since it is more easily damaged.

With excess shade the turf will eventually thin out sufficiently to permit shade tolerant weeds to become established (e.g. Cuban wood sorrel). While there are selective herbicides that will help to control weeds, extreme caution is necessary. Some herbicides, such as atrazine can severely damage trees and shrubs, especially in areas where there are numerous feeder roots, such as occur under a tree canopy. If you have been struggling in vain to maintain acceptable grass coverage in a shaded area of the yard and it is thinning to the extent weeds are invading, now is the time to examine alternative ground covers.

Apart from considering "traditional" low growing ground cover plants, there are several small shrubs that are found as part of the natural understory of wooded areas. These plants are adapted to growing in shady areas and include Florida natives such as wild coffee (*Psychotria nervosa*), beautyberry (*Callicarpa americana*), butterfly sage (*Cordia globosa*) and rouge plant (*Rivina humilis*). There are many non- native plants including some of the aralias (*Polyscias spp.*), grown for their attractive foliage, and flowering shrubs such as firespike (*Odontonema tubiforme*) with many narrow scarlet flower spikes (less often seen is a species with lavender flower spikes). *Pachystachys spicata* (cardinals guard) produces prominent spikes of bright red flowers for much of the year. Two of the non- invasive clerodendrums (*Clerodendrum ugandense* with sky blue butterfly-like flowers or *Clerodendrum thomsonae* – bleeding heart – with clusters of red and white flowers) thrive in partial shade. Many foliage plants are ideal for shaded conditions and some such as the rex begonias and Alocasias can add needed color. A tree -shaded area will provide both the structural support and reduced lighting for growing orchids, hoyas (wax flowers) and epiphytic ferns.

There are also low growing, shade tolerant, ground covers available; some will take all day shade (bright light) such as many ferns, peperomias, and certain bromeliads. For a fine foliage grass like plant, mondo grass (*Ophiopogon japonicus*) is well adapted to shade. For more color *Crossandra spp.* is useful in partial shade, as are coral creeper (*Barleria repens*) and Ganges primrose (*Asystasia gangetica*) – the latter two are fast growing and will climb into shrubs if not kept in bounds. You can request a list of shade tolerant groundcovers from the Miami-Dade Extension Office, or download it from our web site (<http://miami-dade.ifas.ufl.edu/publications.htm>).

One final reminder: when planting under a tree canopy disturb tree roots as little as possible, do not add topsoil to a depth of more than 1-1½", and do not place any

additional soil around the base of tree trunks. Mulch should be used to a depth of 3-4" as a means of preventing weed growth and conserving soil moisture.

Having done all of the above, we can now relax in the shade and think about one part of the yard that needs full sun - this year's upcoming vegetable garden. But that's a subject for the next few words about gardening.

John McLaughlin

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