

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

### **Flowering Vines: Some Impressive Climbers that Attach by Twining and Clinging**

A previous article on flowering vines in Miami-Dade landscapes included a selection of scandent shrubs for local yards. In the wild such shrubs ramble through neighboring trees and shrubs (which they use for support), but never become actively attached. At most some develop hook like spines (e.g., modified peduncles of *Artobotrys hexapetalus* the fragrant climbing ylang-ylang), which help to keep stems in place. This is unlike the climbers discussed below that actively attach to their support through **coiling stems or claw-like or spiraling tendrils**.

Some twining vines use the plant on which they are growing as more than just a support. The Cuscutaceae (dodder family) and *Cassytha* (woe vines, part of the laurel family) are twining vines that exist as true plant parasites (no chlorophyll, vestigial leaves), drawing sustenance from the plant(s) on which they are growing. *Cuscuta* and *Cassytha* are found locally as highly noxious weeds.

None of the ornamental vines discussed below are parasitic but twining and clinging vines can still harm trees and shrubs that are used for support. In most instances these types of vines are best grown on a man-made support – vines that are non-aggressive (e.g., some hoyas) or seasonal (gloriosa lily) may be suitable for growing into a tree or shrub. Twining and clinging vines can be difficult if not impossible to remove and attempts to do so from a large tree can cause damage, loosening sections of bark and breaking limbs. Aggressive twining vines can choke a tree, and if heavily foliaged impede air flow during a windstorm making limb breakage more likely. Dense vine foliage may also reduce the amount of light that penetrates the tree's canopy and promote disease through a build up of moisture.

**Man made supports** such as a **chain link fence** or purpose built structures such as a **trellis** or **pergola** are recommended for twining and clasping vines. Those with coiling tendrils need lattice work constructed from material of a diameter that tendrils can grab hold of – coated wire of about 0.15" (No. 9 steel wire gage) is satisfactory. An unsightly chain link fence can be ideal for tendrillous climbers providing it is firmly anchored, of sufficient size and away from shrubs or trees. After planting the vine, select 2-4 evenly placed main stems fanning them out and tying them in to the trellis or fence. These stems will form the framework of the vine on which flowering lateral stems will develop – if there is only a single stem this can be cut back after planting to stimulate new growth from the base of the vine.

This early selection and tying in of main stems is important as it will help to ensure that the base of the vine fills in as well as encouraging full even coverage of the support. It also reduces the amount of congested growth making subsequent maintenance easier. On a pergola allow the main stems to climb vertically up the support posts (thinning out most side shoots) then once they reach the top tie in to the side and cross beams. For tendril climbers such as *Passiflora* grown on a pergola/arbor, stretch coated wire (see above) between the cross beams.

Once the stems attach themselves (by twining or through tendrils) the vine will still require to be tied in occasionally to control the direction of growth. Soft flexible growth can be carefully woven between the links of a chain link fence or the lattice work of a trellis. When attaching stems use strong twine (or preferably flexible plastic tape) tying in using a figure 8 (loop around stem then support before forming a knot). As the vine develops and commences flowering, pruning becomes essential to prevent it from growing out of bounds or becoming a mass of congested stems. It is normal to prune right after flowering, removing dead/weak stems and cutting back spent flower stems to within 3 buds of the main stem. For especially vigorous vines, additional pruning may be necessary. If growth has become too congested to pick out individual side stems, a portion of the main stem can be cut back and after 2 – 3 days the wilted section of vine removed. Some vines resent hard pruning (*thunbergias*) while others recover well (*Pyrostegia*) and it can be a means of rejuvenating an old neglected vine.

The Bignoniaceae (jacaranda family) contains several outstanding showy vines, many of which climb (at least in part) by means of leaf tendrils. One of the most conspicuous of these vines, ***Pyrostegia venusta* (flame vine)** is ablaze with color winter/early spring, covered with tightly packed clusters of slender, tubular, brilliant fiery orange flowers. This is a very fast growing potentially huge vine; for that reason place it well away from trees, and never grow it on the side of a building. Flame vine is best trained on a pergola, or a long length of chain link fence. Try to restrict growth to the 2-3 strongest main stems, removing all others. These can be allowed to run along the top of pergola or fence and will produce flowering side shoots. After flowering, side shoots can be cut back to within 2-3 buds of the main stem (early spring). Which ever way you decide to grow flame vine, cut back severely at this time to keep it within bounds – it responds well to hard pruning. Choose a site in full sun and enrich native rock/sandy soils with some organic matter. Once established, flame vine exhibits good drought tolerance.

Not as vigorous as the flame vine, the related ***painted trumpet vine (Clytostoma callistegioides)*** still needs to be situated with care even in a large yard – it is a good choice to adorn a large chain link fence or trained on a sturdy arch or pergola. Blooming spring into summer, the 3" flowers are paired, funnel to bell shaped, the throat creamy yellow with thin lilac stripes, the lobes lavender to purple. The vine should receive early morning sun then part shade from hot afternoon sun. Less drought tolerant than the flame vine, soil should be moist, but free draining, enriched with some organic matter. Thin out stems in early spring, and again in late summer if necessary, removing excessively intertwined stems. Since flowering is on the previous year's growth, lateral stems can be cut back by up to a third. Allowing growth to become heavily congested can result in disease leading to stem dieback. Neglected vines can be rejuvenated by pruning main stems by up to two thirds.

Two vines that have long been confused in the nursery trade are ***Manosa hymenaea* and *Cydista aequinoctialis***. The former is the “true” garlic vine, a 10 – 15' vine with terminal cluster of 2 ½" flowers with pinkish purple lobes and a creamy colored throat. Leaves are trifoliolate, the terminal leaflet in some instances replaced by a tendril, with glandular areas on petioles that produce secretions with a

garlicky odor. The latter vine (**bejuco colorado**) is one of several Spanish names) lacks odorous foliage but is commonly labeled as garlic vine nonetheless. The flowers of ***C.aequinoctialis*** also differ being much paler, lilac to white with a yellow throat having pink lines. This is a more vigorous vine and can be grown much as painted trumpet, whereas *Manosa* is not as fast growing, should be grown in full sun and is more tolerant of drought.

***Saritea scandens*** (sometimes referred to as the **glow vine**) is an especially attractive vine, though as indicated by the specific epithet *scandens*, the stems are scadent – climb by growing into adjacent trees. Only some of the trifoliate leaves have the terminal leaflet modified into a hooked tendril (mainly restricted to those on main stems), otherwise it is absent or present as a scar. In some references the term 2-foliate is used (i.e. stems bearing two paired leaves rather than leaflets). Terminology aside the glossy, dark green, rather leathery, obovate leaves perfectly compliment the panicles of tubular to bell shaped flowers. Each flower has light purple to rose pink colored petal lobes with a white to cream colored throat. Flowering occurs in flushes throughout the year with the best display usually in the fall. Train *S. scandens* on a large trellis or pergola where it can grow up to 30', but is usually maintained at 10 – 20'; sometimes it is pinched back and grown as a sprawling free standing shrub. Local soil should be enriched with organic matter, moist but free-draining (though established plants exhibit some drought tolerance). Situate in full sun – some partial afternoon shade is beneficial in summer.

Vines with stem rather than leaf tendrils include several ***Bauhinia*** species of which one of the most eye-catching is ***B. sirindhorniae*** (named after a member of the Thai Royal Family) which has only recently become locally available. The leaves of this vine are coriaceous (leathery but supple) mid green, ovate and like other members of the genus variably split into two distinct lobes. The inflorescence is a terminal compound raceme with a dense covering of small rust colored hairs and made up of many small tubular flowers. Each flower comprises a thin tubular hypanthium (floral cup) atop which one side of the calyx splits to the base to reveal reddish brown, hairy petals. The vine occurs in open areas bordering dry forests in a restricted area of NE Thailand where it can grow to 30'. Two other climbing bauhinias ***B.corymbosa* (phanera)** and ***B. yunnanensis* (Saigon creeper)** develop tendrils, though the latter is sometimes grown as a sprawling shrub. Flowers are orchid-like, white to pale pink with pink stripes (*B.corymbosa*), white with magenta stripes (*B. yunnanensis*). Although tolerant of drought, each vine prefers regular moisture. Adapted to slightly acidic soils, they both usually develop trace element deficiencies on limestone (chlorotic leaves).

In the final of these articles on vines (which will focus on vines suitable for limited space), other tendril climbers will be discussed. However before concluding this section of the present article some mention must be made of one of the most popular group of climbers that use stem tendrils, **passion vines**. Locally grown more for fruit (mostly selections of *Passiflora edulis* – see one of the earlier articles in this series on growing exotic tropical fruit), or as an important component of a butterfly garden. Their leaves form the exclusive larval food for butterflies of the subfamily Heliconiinae. Only a limited number of the more than 460 known species of

passion vine are used as larval food and within this number each butterfly is fairly host specific as to which passion vine(s) is suitable. Fortunately South Florida Heliconiinae butterflies will feed on several passifloras including the native corky stem (*Passiflora suberosa*) and purple passion vine (*P. incarnata*) as well as several other non-native species (e.g., *P. foetida*, *P. morifolia*, *P. quadrangularis*). The corky stem passion flower is of little ornamental value, but is excellent for use in a butterfly garden. It can become weedy as can *P. incarnata* and the non-native *P. foetida*.

Passion flower vines are of course rightly popular for their unique highly ornamental flowers of which there are many (both species and varieties/cultivars), too many to adequately review in this article. Many have flowers of various tints and shades of blue and purple; my own favorites are the red flowering species such as the familiar *Passiflora coccinea*.

When growing passion vines it is imperative that they have a moist but free draining (sandy/gritty) soil – they are very prone to root diseases (*Fusarium* rot and *Phytophthora*) in soil that is too wet. In addition some (especially *P. edulis*) are severely damaged by root knot nematodes. Even those that have some nematode and disease resistance are short lived, and locally passion vines usually need to be replaced after 5-7 years, 10 years would be exceptional. Training the vine to 4-5 main stems and cutting back lateral stems after flowering to avoid congested growth will help extend the life of the vine. Rather than attempting severe restorative pruning, older vines with extensive die-back are best replaced. New plants can be readily propagated from cuttings. Most passifloras are fast growing and require a sturdy support (a pergola or arbor strung with wires is ideal) placed in full sun. Do not over fertilize – use a low nitrogen fertilizer (a 6/6/6, N/P/K is adequate) and on Miami-Dade Limestone, trace element nutritional sprays and a soil drench of chelated iron will be required.

The remainder of the present article will concentrate on stem twiners, vines that climb by coiling their stems around a support, be it a neighboring plant (in the wild) or a man made support. Of the many vines in the Bignoniaceae not all use tendrils – many coil around their support such as the popular **bower vine, *Pandorea jasminoides*** a moderately vigorous twining vine growing to 15 – 25'. It has attractive shiny mid green compound leaves, but is grown for the profusion of fragrant, bell shaped flowers (white with the throat streaked pink). Several cultivars are available including two, '**Alba**' and '**Lady Di**' with all white flowers, the latter a more vigorous selection with a cream colored throat. The cultivar '**Rosea**' has light pink flowers with a darker purplish pink throat, '**Rosea Superba**' larger pink flowers with the throat blotched purple and '**Southern Bell**' a more pastel pink with a yellow throat.

Bower vine should be grown in enriched moist soil, and situated in full sun – some light afternoon shade in summer is acceptable. It can take hard pruning but avoid cutting main stems back to the base – rather than attempting restorative pruning it is better to replace weak, poorly growing specimens. Bower vine is often confused with the closely related ***Podranea ricasoliana* (pink trumpet vine)**, a sprawling, scendent climber (does not twine). Flowers have a candy-like fragrance, pale pink

petals, and the throat with deeper purplish pink veins. More vigorous than bower vine it can, given a suitable environment, rapidly grow out of control – stems that touch the ground readily take root. Pink trumpet vine is also more drought tolerant but highly susceptible to soil nematode damage (risk less on Miami limestone).

A final bignoniac vine, ***Tecomanthe dendrophilia* (New Guinea trumpet vine)**, is one of the most spectacular, especially if trained along a sturdy pergola where the dense pendent clusters of up to 20 foxglove like flowers can be readily appreciated. Individual flowers are a deep rosy pink, becoming lighter as they fully open to reveal a creamy throat, and appear from fall to late spring. Situate in full sun with at most limited shade and plant in enriched evenly moist soil. This is a potentially large vigorous vine requiring regular pruning, which can be done as needed to thin out and limit size. Cutting back woody stems should be restricted to a minimum as flowering occurs on old growth. Not as well known ***T.hillii* (Fraser Island creeper)** is a related Australian species; less vigorous and more drought tolerant, it requires partial shade and produces both showy brilliant pink flowers and attractive dark green shiny leaves.

After the color of the above vines, how about some show-stopping pure white in the form of **herald's trumpet *Beaumontia grandiflora***. This member of the Apocynaceae (oleander family) is another large, heavy, woody vine that is best grown on a sturdy pergola where the pendent clusters of flowers can be seen to best advantage. Flowers, which resemble Easter lilies, appear from late February into spring, are bell to funnel shaped, 3-5" x 1-2½", white, highly fragrant and borne along the stems in axillary clusters. The flowers contrast well with the handsome foliage; large, dark green, shiny, leathery leaves tinged pink when they first emerge. Situate in full sun and maintain soil moisture spring to early fall, allowing the soil to dry out more during the cool months of winter. Cut back after flowering – herald's trumpet responds well to hard pruning.

The Convolvulaceae, a family of mostly twining climbers (convolvere = to twine, Latin) includes many that are weedy and/or invasive, as well as others that are highly ornamental. A member of this family, **Christmas vine or coralita blanca, *Poranopsis paniculata*** (syn. *Porana paniculata*) is a white flowering vine that's locally popular, especially with Cuban Americans. This is a vigorous woody vine (liane) that produces terminal pendulous inflorescences (large branched panicles) composed of numerous small, sweetly fragrant, tubular flowers. Somewhat unremarkable for much of the year, Christmas vine proves its worth for the relatively short period when in bloom. Flowering occurs in late fall/winter, intermittently for several days at a time, but is spectacular as all the flowers in a panicle open at once. Use a large trellis or pergola as a support keeping the vine away from trees and the stems off the ground – they readily root. Prune lateral shoots back to within two buds of main stems – does not respond well if main stems are heavily cut back.

Of the many other Convolvulaceae in cultivation ***Stictocardia* sp** are showy brightly colored vines from Africa that are becoming increasingly popular. In the tropics these become vigorous woody vines, but in warm temperate areas they are grown from seed as an annual flowering vine. ***Stictocardia beraviensis* (king's ipomoea)** is most readily available, growing to 30', but kept at 12 – 20' on a large trellis, pergola

or garden arbor. Leaves are somewhat fleshy, large (to 10') with deeply impressed veins, the base shallowly cordate. Flowers are funnel shaped (corolla), bright crimson with an orangey yellow throat, and produced from late fall into late winter/early spring. Choose a site in full sun with free draining sandy soil and prune back hard in early spring after flowering. Thereafter prune as necessary to keep within bounds. Both *Poranopsis* and *Stictocardia* are short day plants so restrict pruning to a minimum after late summer to ensure good bloom production. *Stictocardia macalusoi* has scarlet flowers and is purported to a more floriferous species.

There are several large heavy vines with long pendent inflorescences that for maximum impact require not only a specious yard but a sturdy pergola or garden arbor with plenty of headroom (at least 4-5'). Two of these vines are in the bean family (Fabaceae), **New Guinea creeper (*Mucuna bennetti*)** and the more familiar **jade vine (*Strongylodon macrobotrys*)**. New Guinea creeper is an extremely vigorous vine that should to be grown away from trees. Situate in full sun (some afternoon shade in summer), and provide an organically enriched, moist but free draining soil and keep mulched (soil must not be allowed to dry out). Curved, claw-like brilliant red flowers are produced in long (to 18") pendent racemes, from spring to fall. Prune after flowering, cutting back lateral flowering stems to within 2-3 buds of a main stem. Jade vine requires similar growing conditions though with somewhat more afternoon shade, flowering late winter into spring. Flowers are keeled and claw-like, a luminous jade green to bluish green in pendent axillary racemes 2½-10' (or more!) in length. Jade vine will need to be pruned after flowering, removing spent flowers but with only limited cutting back of main stems – hard pruning can cause a proliferation of weak shoots and inhibit flowering. For both vines supply micro-nutrient supplements when grown on local limestone based soils.

***Thunbergia mysoriensis* (Mysore clockvine)** is the most ornamental of the thunbergias, much admired for the 2' long pendent racemes of hooded, yellow flowers, the petal lobes and subtending bracts reddish brown to purple. Flowering occurs intermittently from spring into fall. This is a fairly vigorous woody vine that should be grown in light dappled shade (or part afternoon shade) in free draining moist soil – allow the soil to dry out more during winter when not in active growth. Selectively cut back in late winter, but avoid over pruning which will stimulate leafy growth at the expense of flowers (this is true of thunbergias in general). The **sky vine (*Thunbergia grandiflora*)** is a more rampant, fast growing vine that requires plenty of space and should be grown away from trees (on a pergola, perimeter wall trellis or arch over a drive). The 3" flowers are funnel shaped, blue to violet with a white to yellow throat, and appear throughout spring. The cultivar 'Augusta Blue' has deep blue sky blue flowers and is well worth seeking out. Sky vine will grow in full sun but some high afternoon shade is beneficial. Both of these thunbergias are susceptible to trace element deficiencies, especially iron, when grown on limestone.

Another blue flowering vine, ***Petrea volubilis* (queen's wreath)** is often used locally as a tropical substitute for wisteria. It is also referred to as the sandpaper vine due to the large scabrous (rough to touch) leaves. Each individual flower (part of a 10 - 15" pendent to weeping inflorescence) has violet to blue petals which fall away leaving a persistent lavender to blue calyx (turning to grey after several weeks). This

is a large woody vine that requires a strong trellis or pergola and should be grown in full sun. Preferring slightly acid soils, locally grown specimens perform well enough on local limestone though the leaves rarely develop their usual dark green color. An all white selection 'Albiflora' is also locally available. **Purple wreath** (*P. racemosa*), offered by a few local nurseries, is similar though claimed to be faster growing and more floriferous. The flowers appear more purplish and the inflorescence is erect to nutant (nodding) rather than pendent.

A vine offered as tropical wisteria (*Callerya reticulata*, syn. *Milletia reticulata*) was one of the Florida Nursery Growers 2001 'Plants of the Year', but it is difficult to find locally. It can grow as a sprawling shrub or scandent to twining climber, planted in full sun with moderately fertile, well drained soil. In summer erect panicles of tightly packed rosy red to lavender, pea-like flowers appear.

**Clerodendrum thomsoniae** (**bleeding heart vine**) has been included in the present article since several gardening/horticultural texts refer to it as a twining vine. However from my own observations it adopts a more scandent growth habit (it is so described in the AHS Manual on Plant Training and Pruning) and twining if any is slight. In practical terms this means that bleeding heart needs to be tied on to a garden support rather than relying on active attachment. This is a popular vine for several reasons: first and foremost the flower display, but in addition it grows and blooms well in partial shade and is not too large. Drought tolerance however is limited – organically enrich local rock/sandy soils and maintain a covering of mulch. Individual flowers are unusual and showy consisting of an inflated white calyx and a bright red tubular corolla with obovate lobes and exserted white to pink stamens. A variegated bleeding heart vine with creamy white blotched leaves is available.

A vine sold locally as bleeding heart is in fact a sterile hybrid, ***Clerodendrum x speciosum*** (*C. thomsoniae* x *C. splendens*). The flowers differ in that the calyx is cup shaped not inflated and has a decided purple tinge. In addition flowering occurs late fall into early spring, whereas for *C. thomsoniae* it is early spring into summer. This is also a free flowering showy vine, that is adapted to partial shade.

Finally to brighten up your yard a group of slender stemmed, yellow flowering vines, the ***Stigmaphyllo*rum**, members of the Barbados cherry family (Malpighiaceae). Found in the tropical Americas, ***S. ciliatum*** (**golden climber**) is probably best known. Flowers, which occur in clusters of 3 – 8, each have 5 golden yellow, clawed, fimbriate (fringed) petals. Although individual flowers are short lived they're produced in succession over several weeks, winter/early spring. Grow in full sun to partial shade in moist soil on a strong trellis, pergola or arbor, pruning after flowering to limit size and remove congested stems. A related species ***S. bonariense*** (syn. *S. littorale*) produces similar yellow flowers that effectively contrast with the bright green single seeded winged fruits (technically known as a samara, e.g., sycamore). The samaras of a closely related genus of rampant vines, ***Heteropterys*** spp. are often more ornamental than the flowers (e.g., those of ***H. brachiata*** and ***H. beecheyana*** are vivid rosy red and purple respectively). This vine reportedly grows well in Florida but is rarely seen.

