

in the garden

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Viney, Twiney, Clingy



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Seeking sunlight, some plants evolved with the ability to climb and climb. Gaining height by scrambling up trees and shrubs they found more sunlight, exposure of their flowers to pollinators, and greater distribution of their seeds. These plants we call vines (or lianas in many other parts of the world) use their energy to climb, not needing to expend resources on structural trunks.

Gardeners benefit from these adaptations by taking plant displays to a higher level – eye level and beyond. We use vines on enclosing walls, fences, and trellises to go vertical with greenery and blooms. Overhead pergolas and arbors create shady spaces with flowering vines adding curtains of color. Freestanding structures within beds and containers such as obelisks and tuteurs act as viney colorful accents to capture the eye and the imagination.

Vines have developed four stratagems to aid them as they ascend to lofty heights. Knowing how a vine climbs

aids in determining which vine is best for the support structure you offer it. Charles Darwin's "The Movement and Habits of Climbing Plants" published in 1867 notes the four adaptations that allow vines to climb. The most basic strategy is exhibited by the scramblers such as roses and bougainvillea with intertwinning stems developing a thicket that supports itself. Often there are thorns or prickles that snag their sister stems. To start their journey these usually need some assistance from gardeners. Cloth thy hands and arms appropriately.

Creeping fig with adhesive discs conquers all



Then there are the climbers (passion flower, grape vine, and cross vine) with tendrils. The stems respond to pressure, often within minutes after touching a potential support, and clasp in response to touch. With growth accelerated on only one side of the stem the fresh tendril quickly wraps itself round the support (one-inch diameter or less).

The twining technique finds the main stem itself swirling around a support (thin cord to six-inch diameter).

Mandevilla is a twiner and needs some support

Some go clockwise and some vice versa and it doesn't matter which hemisphere they climb in. Most do not respond to pressure and may even twine around themselves. Mandevilla, moon flower, and honeysuckle will easily twine their way up a trellis or obelisk. To send it where you desire, follow its natural inclination as you redirect its shoots. The highly invasive skunk vine and air potato vine also use this technique to swamp a plant or tree. Direct them to the trash can.

The clingers have aerial rootlets or tendrils that terminate in adhesive pads that allow them to stick to smooth surfaces. Once they attach, the elastic tissues contract to reinforce their grip. That's why vines such as Virginia creeper and creeping fig are so hard to keep in bounds as they spiderweb across surfaces and into crevices, windows, and attics.

Help your nursery plants get started with bamboo stakes angled to their planned destination. Once you have your vine scrambling, climbing, twining, or clinging, keep it in bounds and out of trouble. Do any substantial pruning shortly after they flower to allow next season's buds to develop and then as needed to keep it them in bounds. And know which vines to run away from.



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