

in the garden *by Stephen and Kristin Pategas*



STEPHEN & KRISTIN PATEGAS

## A Snail's Spiral In Bloom

Florida's summer rains often bring the telltale silvery mucus trails of garden snails in our perennial and herb beds. Searching the soil surface, we find their small spiral shells and quickly dispose of them before they multiply and feast on our garden plants. But have you ever stopped to ponder the pattern of the snail shell?

The snail secretes calcium carbonate to build its home, increasing in size as the snail grows. The shell forms a logarithmic spiral which was first described by Descartes (1596-1650) and later by Bernoulli (1654-1705), who called it the marvelous or miraculous spiral. This spiral has a unique mathematical property: the size of the spiral increases but its shape is unaltered with each successive curve.

This spiral can be found in plants as well: the seed arrangement of a sunflower, the florets of a Romanesco broccoli and the flowers of the *Vigna caracalla* or corkscrew or snail vine (a member of the Fabaceae or bean



*Spira mirabilis* – the marvelous or miraculous spiral



The colorful flowers resemble the coil of a snail's shell



The snail vine will quickly cover fences and trellises

family). This native to tropical South America is a fast-growing, perennial climber to 20 to 25 feet with twining tendrils that grab any support they can reach. The three fingered (palmate) leaves are 3 to 5 inches long and light to mid-green. From mid-summer through autumn, the corkscrew vine produces hanging clusters of white to yellow flowers with pink to purple tinges. These blooms are coiled and resemble the spiral of a snail shell. They are highly fragrant reminiscent of hyacinth or wisteria blooms. The cylindrical green bean pod grows to six inches long and turns brown as the seeds inside mature.

Gardeners propagate this vine with layering and cuttings, but seed germination is the most common technique. The flowers must be pollinated by ants and the seeds' germination viability is notoriously low. However, once established, this vine will quickly climb and ramble to cover fences, trees, and small children if not controlled. We recommend growing this vine (root hardy in Zones 9 - 10) in full sun, with well-drained soil and regular watering. Prune as needed and remove frost damage in the spring.

There is confusion between the corkscrew/snail vine (*V. caracalla*) and the snail vine (sometimes called *Phaseolus giganteus*) whose blooms are not fragrant and is very aggressive. The foliage of both is very similar so getting plants or seeds from a reliable source is critical. The safest method is to obtain seeds or cuttings from someone who is growing a corkscrew vine with a scented flower.

Although there is no record he grew it at Monticello, Thomas Jefferson was also entranced by *Vigna caracalla*. In 1792 in a letter to Benjamin Hawkins he wrote "The most beautiful bean in the world is the caracalla bean which, though in England a green-house plant, will grow in the open air in Virginia and Carolina." We think you will find it a beauty, too. ■

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