

An Update on Fortuniana Rootstock in Arizona (2005)

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Four years ago I published an article on my experience in growing roses on 'Fortuniana' rootstock in Arizona. I reported that rose bushes on 'Fortuniana' had shown a remarkable resistance to heat stress and had at least triple the first year growth rate of traditional plants. Growth in both foliage and new canes continued even when mean temperatures were above 86 degrees, where most bushes become dormant. The purpose of this article is to update that article and to report my continued enthusiasm for this superior rootstock.

Rose bushes are either grown on their own roots or grafted on to the roots of another rose. The purpose of the latter is to attempt to improve the rose in some respect or to facilitate commercial production. Wholesale rose growers select rootstock based upon various characteristics, including ease of use and rate of success for field grown roses. Because of the difficulties incurred when propagating 'Fortuniana' rootstock, most large growers do not get involved with it at all.

The rootstock of choice varies by region and climate. The most commonly used varieties of rootstock are 'Dr. Huey', '*Rosa multiflora*', and occasionally, 'Manetti'. The preferred rootstock for colder climates is '*Rosa multiflora*' and for warmer climates, 'Dr. Huey'. Here in the Desert Southwest, with our generally alkaline soils and extreme temperatures, we have found that '*Rosa multiflora*' has a shorter life span, losing its vigor after five years or less. By contrast, 'Dr. Huey', a rootstock developed for the hot inland Wasco area of California, has generally performed well in our area. While much slower to get established, once 'Manetti' takes off, it does well, though much more like 'Dr. Huey' than 'Fortuniana'. It is typically used with florist roses.

'Fortuniana', also sometimes known as "Double Cherokee," is thought to be a hybrid of '*Rosa banksiae*' x '*Rosa laevigata*', the latter being generally known as the "Cherokee Rose". In its natural state, it is a rampant climber with scented double flowers about two to three inches across. It also grows extremely well in Arizona and makes a great addition to a collection of climbers. It was discovered in Ninghpo, China, by Robert Fortune around 1840 and sent by him to the Royal Horticultural Society in London.

The use of 'Fortuniana' as a specialty rootstock was initially centered in the Southeast, most notably in Florida. There it is more adapted to the sandy, wet soil which predominates in the region and in particular, it is more resistant to nematode problems that are prevalent in sandy soils. The popularity of roses grown on 'Fortuniana' has, however, increased dramatically over the last few years and has spread from Florida through the South and Southwest.

'Fortuniana' produces a very extensive, vigorous but shallow root system that extends out as much as fifteen to seventeen feet from the bud union. It is this large, vigorous root

system that is of advantage in Arizona, since it is instrumental in delivering water and nutrients to our roses. Because of the structure of the root system, I have switched out my drip lines in my 'Fortuniana' beds to a ½" in-line drip that allows the water to be more evenly distributed around all the bushes.

As I mentioned in my previous article, Dr. Samuel McFadden, an ornamental horticulturist from the University of Florida, tested 'Fortuniana' rootstock in the early 1960's. His tests demonstrated that varieties budded on to 'Fortuniana' produced significantly more blooms, in fact about three times the number of blooms as those on '*R. multiflora*' and twice as many as on 'Dr. Huey'.

My own experience is similar to that of Dr. McFadden. I started with a dozen 'Fortuniana' bushes in 1998 and planted another fifty in each of fall 1999 and spring 2000. I have continued to add more varieties as they have become available. The varieties budded onto 'Fortuniana' rootstock grow at least three times as fast as the best of any other rootstocks planted. At the end of seven months from budding, the average bush produced from eight to twelve large canes from the bud union. After three to four years, it is not uncommon for a bush to produce 20 canes in the spring. 'Fortuniana' bushes also have a remarkable resistance to heat stress and do not shut down like others do during our hot summer months. Even the newest plants continue to put out an occasional new basal or very low cane, numerous blooms and keep their leaves well. They will have at least ten strong canes by winter, some many more. Once the first spring pruning is done, they quickly take off again to triple in size and keep going.

More recently I have experimented with a number of miniature roses on 'Fortuniana'. Once again, I was very pleased with the results. 'June Laver', for example, which is notorious for short stems, produces an abundance of longer stems and larger blooms. I have also had success with 'Incognito', 'Bees Knees' and 'Fairhope', all of which are at least double to triple in size and rate of production.

There are several specialty nurseries in the South which supply roses on 'Fortuniana' understock. These include K & M Nursery, Muncy's Rose Emporium, Becnel Show Roses and Giles Nursery. More recently, Jackson & Perkins has partnered with MerryGro Nursery (www.MerryGro.com) to provide their roses on 'Fortuniana' rootstock, giving it a much wider distribution. Their initial offering includes a good selection of their modern roses. The other nurseries also include some miniatures, old garden roses and other shrub roses.

I cannot speak enthusiastically enough about the discovery of how well these plants will grow here in the Desert Southwest!! They are not only for exhibitors. Many of my neighbors and other friends now grow roses on 'Fortuniana' rootstock because of what they have seen when they visit my garden. They can see that the investment is definitely worth the results.