

# An Overview of Rosa Fortuniana Root Stock

In recent years, rosarians around the country have become more aware of the role played by rootstock in growing great roses. Unlike native plants, most roses, particularly hybrids, do not grow well on their own roots. The natural roots tend to produce disease and insect prone bushes. Early growers discovered that when grafted or budded on to more hardy rootstock, even weaker varieties were made stronger. These rootstocks have more extensive root systems, which allow the plant to better absorb the needed nutrients.

The rootstock of choice varies by region and climate. The most commonly used varieties of rootstock include *Dr. Huey*, *r. multiflora*, and occasionally, *Manetti*. Wholesale rose growers select rootstock based upon various characteristics, including ease of use and rate of success for field grown roses. The most preferred rootstock for colder climates is *r. multiflora* and for warmer climates *Dr. Huey*. Here in the Desert Southwest, with our generally alkaline soils and extreme temperatures, we find that *r. multiflora* has a shorter life span, losing its vigor after five years. When ordering roses from catalogs, it is especially important to ask which rootstock is being used in order to make the most beneficial choice.

*Rosa fortuniana* was discovered in Ninghpo, China, by Robert Fortune around 1848. Also known as Double Cherokee, this rose was sent to the Royal Horticultural Society in London. While *fortuniana* bushes had superior root systems, they had difficulty with the harsh English climate. With the exchange of horticultural information during the 19<sup>th</sup> and early 20<sup>th</sup> centuries, it is believed that *rosa fortuniana* made its way to America and Australia sometime around 1903. When short of other stock, a rose grower near Perth, Australia, decided to bud some varieties onto *fortuniana*. As the vigor and floriferousness of this new combination became apparent, its popularity spread.

Dr. Samuel McFadden, an ornamental horticulturist from the University of Florida, tested this little known rootstock in the early 1960's. He developed a special misting system that increased the success rate for budding and grafting roses onto *fortuniana* to 80-100%.

In a study over several years, Dr. McFadden budded two hybrid tea varieties, Queen Elizabeth and Tiffany, onto three different rootstocks. The

rootstocks were *multiflora*, *Dr. Huey*, and *fortuniana*. Dr. McFadden kept track of the number of blooms cut from each of several bushes of the two varieties growing on the different rootstocks. He had the stems cut the same length below each bloom on all plants. After counting the number of blooms produced over many growing seasons, the varieties budded onto *fortuniana* produced significantly more blooms. The *fortuniana* plants produced about three times the number of blooms as those on *multiflora* and twice as many as on *Dr. Huey*.

The popularity of roses grown on *fortuniana* has increased dramatically over the last few years, spreading from Florida through the South and Southwest. Additional benefits include increased resistance to gall, stem dieback, and root disease, such as *Phytophthora* and *Pythium*. Bushes planted over 40 years ago in Florida are still thriving. On this rootstock, plants are heavier feeders, as they have five times the feeder roots of more common varieties. They should be fed and watered more often, which results in more and stronger canes, more and larger blooms.

Having grown over sixty *fortuniana* budded plants for the past three growing seasons, Dr. McFadden's experience has been proven valid for gardens in the desert areas of Arizona. The bushes have a remarkable resistance to heat stress and will at least triple the first year growth rate of traditional plants. Growth in both foliage and new canes continues even with mean temperatures far above the usual stopping point of 86 degrees. At the end of seven months from budding, the average bush has produced from eight to twelve canes from the bud union or close to it! In more temperate parts of the country, such as Florida and the Carolinas where the bushes are better able to continue growing during the summer months, they will be even taller than in this area.

These blooms are seen on the trophy tables of our local and national rose shows in increasing numbers as the bushes become more readily available. What better way to enjoy the fruits of our investments of labor and love, our passion for roses, than there! *By Dona English, Mesa East Valley Rose Society*