

THE PROBLEM OF ROSE ROOTSTOCKS

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The beginner to rose growing is always somewhat puzzled in finding what is the ideal rootstock for his growing conditions - in fact, if we are to go by the constant but rather inconclusive debates which occur at every Rose Convention, this problem seems to baffle the experts also.

As readers would have noted, there are basically only two common rootstocks used in India - *Rosa multiflora*, with larger slightly hairy leaves and bright pink semi double flowers, and *Rosa indica*, narrower, longer leaves and with a slightly glossier finish. This also has pink semi-double flowers though in a paler shade than *Rosa multiflora*. Both these rootstocks generally flower only on the hills or on the cooler parts of the plains, and that also only if allowed to grow into big bushes.

Ideal Rootstock for Your Area

Without going into too much detail, basically what is the approximate rootstock is determined by two factors: (1) soil; and (2) climate.

Of the various soil factors, the soil pH (acidity or alkalinity) seems to be more important though other factors, e.g. whether the soil is well drained or not, whether it is saline or not, also becomes relevant especially when there are serious problems arising from waterlogging and/or salinity.

Of the two rootstocks, *Rosa multiflora* is happiest on acid, well drained soils of the kind which are common soils of the kind which are common on the West coast of India, in many parts of the Deccan Plateau, e.g. Bangalore, Hyderabad and portions of Pune. On the other hand, *Rosa indica* is happiest when the soil is neutral or alkaline and apparently does better in areas with more loamy soil, for instance, in areas on the Indo-Gangetic plain like Delhi, Lucknow etc.

Coming to the other factor of climate, *Rosa multiflora* does better in areas of comparatively moderate climate, i.e. areas where the summer is not too hot and dry, and winters not too severe - again, the West coast and Deccan plateau. *Rosa indica* is better suited to endure the hot dry climate of North India in summer.

Apparently the fact that unlike *Rosa multiflora* it has a less pronounced tendency to go dormant in severe winter conditions enables plants budded on this to flower more freely, even in the depth of North Indian winters, when there can be occasional very cold spells. These observations are, of course, only a broad approach to the selection of a suitable rootstock, and one has, necessarily, to be guided by local experience.

Apart from rose growing in the ground, rose growing in pots is very popular in India. For such conditions. A third rootstock, Rose Edward (Bourbon), a rose with fragrant pink flowers, as also a non-flowering form of Rose Edward are available. There is a considerable body of opinion that this rootstock is particularly appropriate for pot plants, but we have to keep a strict watch for the red scale pest which seems to be very partial to this stock. Incidentally Rose Edward is also recommended for certain areas with saline soil, e.g. parts of Rajasthan as it apparently resists such conditions better.

The two problem areas in India where it is difficult to find an appropriate rootstock are:

- (1) the North East monsoon coastal belt centred around Madras city on the east coast,
- (2) West Bengal, especially the coastal areas.

In areas around Madras neither *Rosa multiflora* nor *Rosa indica* are particularly satisfactory. In fact, not much work seems to have been done in finding a good rootstock for such areas, where, frankly, rose growing languishes mainly for this reason. I have come across any number of cases of enthusiastic growers who bring roses budded on *Rosa multiflora* from Bangalore only to find the plants don't survive the first year in Madras.

A possible answer may lie on the use of the hybrid musk rose 'Prosperity'. The well known rosarian of Calicut, in Kerala, Dr. Balakrishnan, found that Prosperity was a good rootstock in his conditions and certainly it grows very well in Madras also. Perhaps some of the rose growers in Madras city should experiment with roses budded on Prosperity as rootstock.

As regards West Bengal, the problem appears to be equally intractable, with waterlogging being the factor which causes the most damage. Here again not much work seems to have been done in finding an appropriate rootstock. At one time it was felt that *Rosa clinophylla* (*Rose involucrata*) which is well adapted to marshy conditions and which is, in fact, a wild rose of the Bengal plains, would provide an answer but, unfortunately, *Rosa clinophylla* is very difficult to strike from cuttings and this factor naturally makes it difficult for nurserymen to use it as a stock. Perhaps one of the seedlings of *Rosa clinophylla* which are being raised in some number in Kodaikanal and other places would provide an answer.

Another approach was suggested by Dr. Basye, the well-known American rosarian who felt that *Rosa fortuniana*, the hybrid between *Rosa laevigata* and *Rosa banksiae* would be good for such conditions. The Fortuniana rootstock is used in the coastal areas of Florida, U.S.A. and in parts of Australia also. Apparently it provides uncommon vigour to plants budded on it, but here again we have the problem that cuttings don't strike easily. According to Firminger's 'Manual of Gardening in India', *Rosa laevigata* used to be common around Calcutta in his time (referred to as *Rosa ternata* in his book). So perhaps *Rosa fortuniana* should be tried by some enterprising Calcutta rosarians.

A word in conclusion on rootstock for standard roses. In my experience Rose Edward seems to make the best rootstock for such purposes though *Rosa indica* is also quite good. The growth of *Rosa multiflora* is generally too willowy to lend itself to being budded as a standard.

May I also add that miniature roses which have become so popular now-a-days are best grown on their own roots where the miniature characteristics are preserved. When budded on to rootstocks the extra vigour of the rootstock very often leads to the production of bushes disproportionately large to the size of the flower.

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