

# THE FINAL WORD

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At the outset we do have a certain hesitation in describing this piece as the Final Word, in these days where the simplest of statements seems to be evoke fierce controversy. But the Editor's mandate cannot be ignored and so here we go with our spirits bolstered by this rather feeble defense!

One of the most important issues facing the rose world is the preservation of the genetic diversity of the rose family. Quite sometime back the great Wilhelm Kordes of 'Crimson Glory' fame, said, referring to the kind of roses which were being evolved, that 'the soup ladle will bring out only what is the tureen'. If we are to create 'different' roses we do have to bring in new rose species, but as we all know, very few rose species have actually been used to evolve modern roses. The wild roses of the world, which are so vital for the future of the rose are unfortunately under grave threat from factors such as climate change and habitat loss owing to the pressure of development. The latter is particularly significant in various regions of Asia where most of the rose species are to be found and their habitat loss due to economic development is an alarming feature.

Taking up the question of climate change, it is easy to dismiss this as one more example of 'mad scientist syndrome', whereas practical gardeners and farmers know only too well that it is indeed taking place. In our mountain garden at 7000 feet, in the mountains of southern India, plants which were to be found only below 5000 feet have now in the last 15 years, climbed to the top of the mountain at 7000 + feet.

Again we see significant changes in widely separated areas – why have the grape wine regions of Chile moved further south and why are the yields of apples in the Himalayan regions going down drastically? Clearly there is not enough chilling.

In a situation of climate change and habitat loss, it is imperative to have an appropriate strategy for preservation of rose species. For these very important reasons it is very, very clear that we have to seriously undertake the conservation of rose species and this has to be done in various parts of the world. In this venture we have to bear in mind one very interesting fact that a rose species is very often a composite of several different kinds – what are called eco-types, that is, not genetically different but adapted to different climates. If we take the swamp rose of the U.S., *R. palustris*, no less an authority than Roy Shepherd ("History of the Rose") points out that this species, while always growing in swampy areas, is to be found from the swamps of Alabama to the wetlands of Quebec. There can be little doubt that there are many eco-types involved in this adaptation process and we have to preserve as many of them as possible when we seek to preserve *R. palustris*.

Again, if we consider *R. clinophylla* (with which we are working to create better warm climate roses) there are at least 3 different forms, adapted to warm moist climate, warm dry climate, and sub-tropical climate. All these types have to be preserved.

Coming back to climate change it is important for us to realize that it forces us to re-appraise the relative importance of preservation of species within the normal habitat (*in situ*) and, outside, in collections in different climates, e.g., in gardens, especially public gardens, around the world (*ex situ*).

It is time we all look upon this establishment of rose species collections as one of the priority aims of the rose movement.

In our anxiety to preserve rose species we also have to think of the preservation of heritage roses. Heritage roses are valuable not for sentimental reasons – the roses our grandmothers grew – but as providing the means of evolving better roses for various parts of the world.

Ideally, rose breeding should be like a relay race. Each new rose breeder not being forced to begin from the beginning, but carrying forward the work of his predecessors. David Austin, with his English Roses has demonstrated this admirably, but his work, naturally, is focused on the cold climate of Britain. What happens to the rest of the world – the sub-tropical and the tropical world? It is here that there is this great lacuna in rose breeding. Such areas do not have the modern roses which can be grown easily for the precise reason that warm climate heritage roses and rose species have been largely neglected in modern rose breeding. If the rose is to remain the world's most popular flower we have to take some very energetic steps indeed to fill the rose vacuum.

The focus on cold climate rose breeding is perfectly understandable as hitherto these were the areas of the world which were most developed. Rose breeders have to make a living and they will naturally focus on where the purchasing power lies. But it is not news that this disparity in development is rapidly disappearing with warm climate countries in the lead in economic development.

In other words, what we have to realize is that roses have to be created for various climatic regions of the world, and at least, in the larger countries, for various different agro-climates of that country. This concept of 'regionality' is nothing new – nature has always followed it. If we look at the distribution of wild roses, we can see that the diploid (2 sets of chromosomes) species, are concentrated near the Equator, the tetraploid (4 sets) in the temperate regions, and the few octoploids (8 sets) in the circumpolar regions.

Much as we would like the rose to be something which performs equally well around the world, there can be little doubt that, excepting for a very few great roses, all others are at their best in specific climatic regions. Even the greatest of modern roses, 'Peace' does not grow well in north India where it is possible to raise roses of stunning perfection in the winter season.

In this background, we have been trying to create new strains of warm climate roses, using 2 Indian rose species, *R. clinophylla*, (probably the only tropical rose species in the world) and *R. gigantea*, which performs so admirably in sub-

tropical climates, like the lower elevations of the Himalayas, especially the eastern end.

These 2 species apart, our focus has been on utilizing heritage roses which do well in warm climates - the Teas, the Chinas, the Noisettes.

It is indeed significant that the American Garden Rose Organization has recognized 'regionality' and the need to identify new roses which do well in various climate zones of the U.S., while making their awards, and this, undoubtedly is the way forward.