

difficult subject. In my small book, *Modern Moss Roses*, the earlier years dealing with the crested are detailed. The main difficulty has been in finding or breeding fertile crested material. A few more years and several hundred (possibly thousands) crosses may do the trick.

Yet another dream has been what I term "halo" roses. Jack Harkness has worked for many years on his *Hulthemia* hybrids. His results have been astounding in that he has been able to carry the bright red base area of *Hulthemia* over into his hybrids. However, it is yet a long way from being a dependable garden subject. The sterility problem has been the major roadblock, up to now, in breeding with *Hulthemia*. Hopefully, this can be resolved. In my research I have found a similar marking in certain miniatures, and so I am following up this lead. So far, this has appeared only in single, or near single, flowered seedlings, and the color is basically light lavender to pinkish lavender with the dark basal area of deeper lavender. Since lavender is part red, I have been looking for seedlings which are lighter peach to pink and in which the basal area is more nearly red. To date, I have found a very few, but the promise is there. The beauty of my "halo" selections is that a number are fertile and have proven that this characteristic can be passed on to the offspring. There is yet much to be done, but can you imagine using some of these uniquely marked roses in an arrangement? The possibilities in rose breeding are exciting.

**Footnote:** In a recent letter from Jack Harkness, he suggested that his *Hulthemia* hybrid, *Tigris*, might be useful for me to work with, as he has found that it produces some viable pollen. *Tigris* is bright yellow with a red eye, and I now have a plant!

## AN AMPHIDIPOID OF ROSA BANKSIAE and ROSA LAEVIGATA INDUCED BY COLCHICINE

Robert E. Basye  
P.O. Box 494  
Caldwell, Texas 77836

According to Rehder, most wild roses belong to the subgenus *Eurosa* of the genus *Rosa*. This subgenus is divided into ten sections, two of which are *Banksianae* and *Laevigatae*. The first of these contains only *R. banksiae* and the related *R. cymosa*. The second contains only *R. laevigata*.

It might be suspected, therefore, that *R. banksiae* and *R. laevigata* do not hybridize easily with most other roses, and this is indeed the case. Being native to southern China, they are also not very hardy. With these shortcomings, it might be thought useless to try and bring them into the society of modern roses, even though they have some very sterling virtues such as evergreen foliage, longevity, and disease resistance. But let us remember that the tea and china roses, though tender, have contributed the ever-blooming trait to our modern roses. Who among us would now sacrifice this treasured feature just because modern roses are not as hardy as we would like?

There is yet another difficulty. Both *R. banksiae* and *R. laevigata* are diploids with 14 chromosomes, while most garden roses are tetraploids with 28 chromosomes. The cross, *R. banksiae* x *R. laevigata*, makes a fine and healthy plant, but it is almost completely sterile, and of course, is still a diploid. By applying colchicine to this cross, however, we can make it both highly self-fertile and tetraploid! The magic behind this use of colchicine is perhaps the greatest contribution to genetics and plant breeding in the present century.

Colchicine is an alkaloid found in the corms and seeds of the autumn-blooming crocus, *Colchicum autumnale*, native to regions near the Mediterranean Sea and the Black Sea. It flowers in the autumn, but waits until spring to produce leaves and fruit. Some effects of the drug were known in ancient times. For example, it was used as early as the sixth century A.D.