

Santamour, Frank S., Jr. 1970. Cytology of *Magnolia* hybrids. II *M. X soulangiana* hybrids. Univ. Penna. Morris Arb. Bull. 21(3): 58-61.

Santamour, Frank S., Jr. 1975. Cyanide in *Magnolia* - Some further observations. Newsl. Amer. Mag. Soc. 11(2): 5-7.

Note added in proof: 1976 crossings of *M. acuminata* with *M. X loebneri* 'Merrill' gave 14 good seed in seven fruit (eight pollinated), and with *M. X loebneri* 'Spring Snow' gave 13 good seed in seven fruit (eleven pollinated). Based on previous experience these crosses are probably successful and good hybrids will be produced. ***

Customary or Customized Plants?

by J. C. McDANIEL

Magnolia nursery sources might be roughly divided into custom and customary growers. The custom growers offer species, hybrids and cultivars in considerable assortment, including new or rare kinds. They are represented in the U.S. by a few nurseries like Gossler Farms, with whom various magnolias are a specialty. English custom catalogs include Treseder's, a specialist in magnolia, and Hillier's, with whom the whole plant kingdom seems to be a specialty. Two late American counterparts of Hillier in ornamentals were Henry Hohman and Henry Kohankie, of whom someone remarked that he had "two of every kind of plant in his nursery."

Apparently at the other end of the scale in horticultural sophistication are some of the full-page advertisers in American magazines. An example of this type advertised on a page of the September, 1975 *Horticulture*, listing 33 named rose cultivars, and hundreds of other grown or collected plants including just one 79¢ magnolia. Only "Magnolia," with not another name or a single word of description to indicate to a customer which among the many possible kinds it might be!

The address is McMinnville, Tennessee, in the southeastern states where unqualified "Magnolia" with most people usually refers to evergreen *M. grandiflora* seedling trees. But this is a national edition magazine, distributed to more northern readers, among whom "magnolia" is more likely to mean *M. X soulangiana*. I'd guess that Vernon Barnes Nursery would most likely fill its "magnolia" orders with one or the other of these two. You pay your 79¢ and then see what you get. It may or may not be just what you wanted.

There are many other local and catalog nurseries in the eastern, midwestern, southern and Pacific states who handle some magnolias, but few of them have more than four kinds and seldom more than one or two cultivars in any deciduous species or hybrid, and seldom (except in California) anything but seedlings in *M. grandiflora*.

This contrasts with the situation in numerous other cultivated ornamental plants, particularly so in roses. The local dealers, in season, will stock dozens of named rose cultivars, and the leading catalogs will list hundreds, plus just a few species (like *rugosa* and the weed-like *multiflora*) as seedling material.

Budding is a propagation practice now used for most rose cultivars, though most can be grown own-rooted from cuttings. Both methods are also used in magnolia propagation, though cuttings are the customary method for the most often propagated deciduous cultivars, especially in *M. X soulangiana*, *M. liliflora* and *M. X loebneri*. New rare cultivars, some older ones, the difficult to root species like *M. denudata*, and others of which the seed supply is short, are more likely to be found, if at all, as budded or grafted trees. But most propagators seem to overlook budding as a method for increasing magnolias; they grow the customary Asian kinds from cuttings, and if they grow *M. grandiflora* or other American species, it is as seedlings.

This need not be so. Magnolia graft-compatibilities are wide and in most parts of America where magnolias grow and where a good supply of budded roses (including this year's All-America Roses) is taken as customary, there should be some alert nurserymen who can still wield a grafting knife well enough to "customize" the 79¢ tree or its equivalent, to supply newer or rarer magnolias for the more sophisticated planter.

Probably *M. acuminata*, where it is available as seedlings, is the one most useful hardy magnolia understock. But common *M. X soulangiana* is a generally satisfactory, much more commonly available second choice. It is useful as a stock even for *M. acuminata* cultivars, for practically anything else in subgenus *Yulania* (including the tender big species) and for much of Subgenus *Magnolia*, too. *M. kobus* or its hybrids *M. X kewensis* and *M. X loebneri* are also useful for any but the largest-growing *Yulania*s. *M. X brooklynensis*, when it becomes more plentiful, should rival *M. acuminata* as an understock, and it is easier to grow from cuttings.

Some species and hybrids in Subgenus *Magnolia* probably grow best on closely related stocks. The Japanese traditionally graft *M. X watsonii* on *M. X hypoleuca*, but I find it just as successful where chip budded on *M. tripetala*, the American relative whose seed is in greater supply here. *M. ashei*, *M. macrophylla* and their hybrids all grow nicely when budded on *macrophylla*, but I have been (so far) unable to get *macrophylla* buds to grow on *tripetala*. That is, however, a satisfactory stock for *M. X thompsoniana*, *M. officinalis biloba* and *M. X 'Charles Coates' (sieboldii X tripetala)*.

Inter-subgeneric grafts that have been reported successful include *virginiana/acuminata*, *virginiana/soulangiana*, *grandiflora/kobus*, *soulangiana/grandiflora*, *stellata/grandiflora*, and *acuminata/hypoleuca*. In Illinois, *M. sieboldii* grows well on *virginiana* understocks (of a different botanical section). Where they are hardy, various evergreen subtropical and tropical evergreen magnolias and even *Talauma* species will graft on *M. grandiflora*.

Chip budding, which I have discussed here before and which can be used over a long season, looks like the best single method for outdoor grafting of