Wilson's Magnolias in America

by J.C. McDaniel

None of the Wilson-related magnolias has become a household word in American horticulture, though several are becoming better known to members of the American Magnolia Society and to other gardeners in especially well adapted areas of culture.

Coming from the warmer temperate regions of China, Wilson's magnolias, with the possible exception of *M. cylindrica*, are not as tolerant of cold winters as some of the long established species from farther north in China and Japan, and old hybrids of the *M.* × *soulangiana* derivation. All, except *M. cylindrica* and *M. officinalis biloba*, were cultivated in Europe before becoming established in the United States.

Add to this the general conservatism of American wholesale producers, who have clung to a few older cultivars for propagation, and the fact that the gardening public relies on what gets to the local retail sales yard for their choices, and the newer things are apt to be overlooked by most. Here and there, in botanic gardens and the plantings of amateur collectors, several of the taxa with whose naming or introduction E.H. Wilson was associated have gained a toe-hold in U.S. culture. A few breeders have used some in hybridization, sometimes with good results. We may expect to see more hybridization and eventual selection of numerous hybrids incorporating the Wilson introductions.

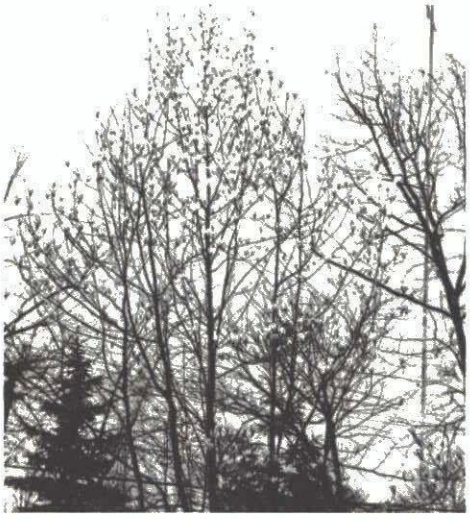
Subgenus Magnolia

Section Gwillimia - *M. delavayi* is probably the most restricted in climatic adaptation, at least northward. I would give it a tentative Zone 9 (U.S.D.A.) winter hardiness rating, with possibly an extension into Zone 8b in the Gulf states where summers are hot enough to mature its new growth. It has survived with a little die-back of late terminal growth and flowered the past several years at the Gloster Arboretum, Gloster, Mississippi. Its region of best adaptation, within the U.S., has been along the coast in California, perhaps extending to the southwest coast of Oregon. At Seattle, the climate does not appear to be hot enough for *M. delavayi* to become established.

No hybrids of *M. delavayi* have been reported. Experimenters who have the two species might try intersectional hybridization with the hardier, larger flowered *M. grandiflora*.

Section Rytidospermum-In contrast to the related *M. hypoleuca*, which ranges north to the Kuril Islands and

Magnolia cylindrica *flower.*



Magnolia cylindrica *photographed in 1966 was grown by Gus Krossa from seed received from China in 1936.*

Sakhalin, north of Japan, *M. officinalis biloba* comes from seed imported from Lu Shan Arboretum at Kuling, in Kiukiang, close to where Wilson recorded it. In the U.S. it has survived near Detroit, in Zone 6, but not in recent winters at Urbana, Illinois (Zone 6a), while the same clone grows with no loss of wood 150 miles south in Zone 6b at Benton, Illinois.

Some second generation trees in America are obviously hybrids, *M. officinalis biloba* × *M. tripetala,* and partake of the greater hardiness of the native American parent, whose normal leaf shape is dominant. In Korea and England, some material referred to *M. officinalis* is probably hybridized with *M. hypoleuca.* These trees need further study.

Awaiting hybridization are crosses of *M. officinalis* with members of Section Oyama, parallel to crosses between Oyama and other species (*hypoleuca, tripetala*) in Section Rytidospermum.

Section Oyama - *M. sieboldii* ssp. *sinensis* has flowered in Pacific Coast areas, Zones 8, 9, & 10, and once at Knoxville, Tennessee (Zone 7). Its climatic adaptability, particularly in Eastern states, is still to be worked out. Its one reported hybrid, as *M.* × *highdownensis,* is now referred to *M. wilsonii* by Dr. Stephen A. Spongberg. Since *wilsonii* and *sieboldii sinensis* both belong to Section Oyama, such hybridization should be relatively easy to accomplish, but it has not yet been recorded under controlled conditions.

M. wilsonii apparently is hardy under Zone 8 conditions at Williamsburg, Virginia, and adapts well to Zones 8 and 9 on the Pacific Coast. Has anyone in America yet given it a trial in Zone 7 or colder? Besides the purported hybrid *M.* × *highdownensis* mentioned above, *M. wilsonii* was crossed with *M. hypoleuca* by Dr. Tor Nitzelius in Sweden, and two of his young hybrids have grown as grafts since 1976 at Urbana, Illinois, but have not yet begun to flower.

Subgenus Yulania

Section Buergeria - *M. cylindrica* is almost certainly the hardiest of the species discussed here. From seed reportedly collected in western Anhwei, it has proved hardy in U.S. plantings with winter temperatures as low as -23° F, which would put it in U.S.D.A. Zone 4b. That may be stretching it a bit, but it seems that *cylindrica* can stand at least Zone 5 winters. Most cultivation, so far, has been in Zone 6 or warmer.

Several hybridizers have crossed with *M. cylindrica.* At Urbana, I have grown grafts of Phil Savage's cross, *M. denudata* 'Japanese Clone' × *M. cylindrica,* without any winter injury in the recent cold winters for Zone 6a; one of them flowered well in 1979 and 1980 but set no fruit. Other crosses might be tried involving *cylindrica* with other diploids in Section Buergeria, as well as with additional species and hybrids of higher ploidy.

Section Yulania - *M. dawsoniana* is hardier than *M. sargentiana robusta,* but has suffered severe winter injury at

Urbana, Illinois. At San Marino, California (Zone 10), it seems to stand the heat better than any other species in Section Yulania. It does well, when maturity comes, in Zone 9 along the Pacific Coast, up to the Puget Sound area. It has not been consciously employed in American hybridization, but a superior broad-tepaled seedling that came from an English source and has flowered at the University of Washington Arboretum in Seattle (Zone 9), is believed by several observers to be *dawsoniana* × *sargentiana robusta.* This clone is being tried in Illinois.

M. sargentiana in its typical variety is untested in the U.S., so far as I have had reports. It may be hardier than var. *robusta,* but by English experience has less to offer of horticultural excellence. Who has typical *M. sargentiana*?

M. sargentiana var. *robusta* has horticultural excellence, where adapted, but its climatic adaptation probably is limited to U.S.D.A. Zone 7 and warmer. It survives as sprout growth at Benton, Illinois, and in the milder winters has not frozen to the ground. Flowering has been reported in South Carolina (probably Zone 8), and is regular on the Pacific Coast in Zones 8, 9, and 10. It is definitely hardier than *M. campbellii,* but its culture as a pure species does not permit flowering in large parts of America.

M. sargentiana var. *robusta* has much to offer in high quality hybrids, of which several have been made. M. × 'Caerhays Belle' (*robusta* × *sprengeri* 'Diva') grew for a time at Urbana, Illinois, but was winter killed before it flowered. Grafts established at Springfield, Oregon, have flourished and flowered well in the Zone 8 climate there, where it tends to confirm the Cornwall evaluation as a cultivar with more beautiful flowers than *sprengeri* 'Diva.'

Phil Savage, in Michigan (Zone 6),

Magnolia sargentiana *var.* robusta.

has a population of *M. denudata* 'Japanese Clone' × *M. sargentiana robusta,* several of which survive his winters well. When several of these were grafted at Urbana, Illinois, in 1976, only one survived to 1978, and it was dead in 1979. Farther south at Benton, Illinois, it survives and grows well. This population promises to yield some good hybrids with greater hardiness than pure *M. sargentiana robusta.* Other crosses worth investigation would be *robusta* combined with *M. acuminata,* and with selected fertile clones of *M.* × *soulangiana.*

M. sprengeri has two varieties: The typical (?) white form that Rehder and Wilson earlier labeled "*M. denudata* var. *elongata,*" and the more widely cultivated (in the U.S. particularly) pink flowered *M. sprengeri* var. *diva,* especially its (original) cultivar form, 'Diva.' To date, the white form seems unavailable in American propagation. (What some nurseries along the Gulf Coast had for a while under the "*M. denudata* var. *elongata*" label seems to be merely *M. denudata.)*

M. sprengeri diva cv. 'Diva' has flowered in the U.S. in localities as cold as Zone 6, especially where not far from the ocean or other bodies of water with a tempering effect (as at

Bloomfield Hills, Michigan, near Lake St. Clair). Although it had flowered well for a period of years at Sesser, Illinois (Zone 6b), it proved more susceptible than *M.* × *soulangiana* to freeze damage occurring after growth had started in the spring; at Urbana, Illinois, it flowered before the severe cold winters between 1976 and 1979 severely injured large branches and killed some grafts completely. Give it a provisional Zone 7 hardiness rating in America.

The cultivar 'Diva' has been the parent of other cultivar selections from open pollination in Britain which remain to be tested under American conditions. These include 'Claret Cup' and 'Copeland Court.'

In the U.S. 'Diva' has been used in numerous hybridizations, some of which have yet to flower. Among those that have, some have not yet yielded a hardy cultivar selection, such as crosses with *denudata* and *M.* × *veitchii*. On the other hand, the cross that Dr. Frank B. Galyon made yielded 'Paul Cook' *(sprengeri* 'Diva' × a seedling of *M.* x *soulangiana* 'Lennei') which has been perfectly wood hardy through numerous cold winters at Urbana, Illinois, grows as vigorously as 'Diva' and is precociously flowered, with light pink flowers at least as large as those of 'Diva.' 'Paul Cook' is fertile, and has yielded vigorous seedlings. Its more extensive use in hybridization is anticipated.

Just being introduced commercially is 'Galaxy,' from William F. Kosar's cross at the U.S. National Arboretum of *M. liliflora* 'Nigra' × *M. sprengeri* 'Diva.' This is hardy probably through Zone 6, possibly Zone 5, and ordinarily will flower sooner than 'Diva.'

Still to be evaluated is a lot of seedlings bred by Phil Savage, of *M. acuminata* × 'Diva', but their *acuminata* parentage is expected to make them hardy into Zone 5. Also awaiting maturity are a few seedlings bred by Dr. Frank S. Santamour at the U.S. National Arboretum from (*M. kobus* × *M.* × *loebneri* 'Spring Snow') × *M. sprengeri* 'Diva.' Santamour also made *acuminata* × 'Diva' crosses, which may flower sooner than Savage's.

Ernest Iufer Dies at 84

Ernest J. Iufer, Sr., 84, operator of Iufer Nursery, which he founded in 1925 at Salem, Oregon, died September 15 without realizing his dream of making his nursery into a public arboretum to preserve it from being overrun by housing developments.

An editorial in the *Salem Statesman-Journal* paying tribute to the man and his work described the Iufer Magnolia Arboretum, part of the family nursery on 12th street in South Salem, as "a unique national treasure" and "a challenge to the community to preserve it for public use and enjoyment". The editorial and obituary in the Salem newspaper was forwarded by Society member William F. Kosar of Corvallis, Oregon.

With advancing age Mr. Iufer had grown increasingly concerned in recent years that the extensive Magnolia and related plantings on the premises would be destroyed by housing developments after his death, and he and his wife and many friends inaugurated a campaign to enlist financial support to develop the plantings into a public arboretum. Considerable contributions or commitments have been received but so far have not reached the $125,000 in matching funds that the State of Oregon has said will be required to establish the arboretum.

Contributions to the Iufer Magnolia Arboretum fund are still being accepted by his wife, Louise Iufer, 3995 12th Street, S.E., Salem, Oregon, 97302.