

'Pristine': A Unique Hybrid

by J.C. McDaniel

A magnolia with a much longer record of continuous cultivation than any other species is the parent of some of the newest hybrid cultivars. Among these is my new cultivar, the first of a new interspecific combination, *M. stellata* × *M. heptapeta*. This cultivar, the first known specimen of this hybridization, has now been released with the name 'Pristine'.

China's Yulan Magnolia (*M. heptapeta*, formerly *M. denudata*) was the seed parent of the first man-made Magnolia hybrid, *M. × soulangiana*; the pollen source used by Soulange-Bodin in France about 1820 was another Chinese species, *M. quinquepeta* (*M. liliflora*). Surprisingly, Yulan does not seem to have been used in additional interspecific crosses for nearly another century. Peter C.M. Veitch, called by Neil Treseder the first successful British magnolia breeder, succeeded in hybridizing *M. campbellii* with pollen from *M. heptapeta* in 1907, and in Treseder's words, "had the reward of seeing the results of his magnolia breeding attain florescence."

The result was *M. × veitchii* Bean, of which the best known cultivar is 'Peter Veitch'. (Another British nurseryman, Archibald Thompson, had raised a *Magnolia* chance hybrid, the type of *M. × thompsoniana*, even ahead of Soulange-Bodin's work, but it was not the result of a conscious breeding effort.) *M. × veitchii*, in turn, has been used more recently by the late American magnolia breeder, D. Todd Gresham, several of whose crosses have been named, and from whose seedlings selections are still being made. He used *veitchii* most often as the pollen parent in crosses on *M. quinquepeta* and the × *soulangiana* cultivars 'Lennei Alba' and 'Rustica Rubra,' both of European origin. About the same time, William F. Kosar back-crossed Yulan with *veitchii*; two cultivars of this parentage are near introduction from the U.S. National Arboretum in Washington.

Still more recently, in Japan, nurseryman K. Wada has introduced 'Wada's Snow White,' stated to be a hybrid between *M. heptapeta* and the Japanese native *M. salicifolia*; its first American flowering will be in 1980. In the 1920s, Wada had claimed a hybrid between the Yulan and *M. kobus*,

that he called "*M. conspus*." These hybrids, except for the diploid *M. × thompsoniana* in Subgenus *Magnolia*, involve hybridization of species in different chromosome levels in Subgenus *Yulania*. *M. heptapeta* is a hexaploid, *M. quinquepeta* is a tetraploid, and *M. kobus* and *M. salicifolia* are diploids—in the same *Buergeria* section with *M. stellata*.

I first tried crossing *M. stellata* × *M. heptapeta* about 1968, using as seed parents two *stellata* cultivars, 'Royal Star' and 'Waterlily,' in Urbana at the home of Dr. Donald P. Rogers, of the University of Illinois faculty in Botany. The pollen source was an old tree of *M. heptapeta* in Mount Hope Cemetery, Urbana, which consistently flowered after the first *M. × soulangiana* flowers were open in the area; its flowering being thus later, they appeared more reliably than those of other *heptapeta* trees in Urbana.

Fruits developed on both cultivars of *M. stellata*, but the squirrels took all the crosses on 'Royal Star'; from one hybridized fruit on 'Waterlily,' I was able to raise a single



Magnolia 'Pristine'; photo by Marj Gossler.

seedling that early showed *heptapeta* parentage by its leaf shape. Buds were top-worked on both *M. × soulangiana* and *M. × loebneri* 'Ballerina' trees in Urbana, and scions were sent for test to Tom Dodd Nurseries, Inc., Semmes, Alabama, and Gossler Farms Nursery, Springfield, Oregon.

By 1975 flowering had begun at Semmes and on the oldest graft in Urbana, but the latter was on a downhanging lower limb (on *soulangiana*) which the owner pruned back, destroying the first flower buds to form in 1974; the first flower in 1976 was damaged by a spring freeze. After the first flowering at Semmes, Alabama, Tom Dodd Jr. reported that the hybrid had excellent flowers and was worth naming.

The younger graft (on 'Ballerina' interstock) in Urbana grew more vigorously, but was in a location shaded by a large black locust tree to the southeast, which appears to have delayed flowering until April 1979. In the previous month, James Gossler's three oldest grafts had come into bloom for the first time in Oregon. He suggested the cultivar name 'Pristine'. Here are his impressions:

"Bloomed first for Gossler, 1979, as three six-foot plants approximately five years old and were grafted plants. Habit resembles *M. heptapeta*, being upright and rather open. Exhibits all good traits of its distinguished parents. Flowers are pure white, presented very erectly in about the same numbers as *M. heptapeta* and tepals more numerous. Substance excellent with floral parts similar to *M. 'Spring Snow'* with a greenish cast.

"Propagates easily as summer cuttings

under mist. It is hardy and blooms rather late in season.

"Gossler Farms has sold it for two years as an unnamed hybrid. We had not seen it bloom but gambled on the exciting prospect of this union. Happily our gamble won... Gossler Farms rates this an excellent commercial prospect and a worthy contribution."

I agreed to his suggestion of the name, 'Pristine', for this hybrid.

On July 20, 1979, Gossler wrote, "We took over 100 cuttings last week and get a success rate of perhaps 80 per cent... We are very excited about 'Pristine' and offer you our heartiest congratulations." Propagation is also under way at the Little Lake Nursery (15101 MacDonald Road, Auburn, CA 95603) and at the wholesale Tom Dodd Nurseries, Semmes, Alabama 36575. Other nurseries will receive scions for 1980 propagation.

Swedish Magnolia Crosses

Tor G. Nitzelius, a Swedish member of the Society, has made a second hybridization using *Magnolia wilsonii*, he reports in a letter to President Joe McDaniel.

His latest hybridization is *M. sieboldii* × *M. wilsonii*, done in May 1976 in the Gothenburg Botanical Garden in Sweden, though he cautions that he's still not absolutely certain it's a true hybrid. It has not yet flowered. Earlier Mr. Nitzelius successfully hybridized *M. wilsonii* × *M. hypoleuca* and has sent grafting material of this hybrid to President McDaniel.

Of the latter cross, Mr. Nitzelius feels it may combine the beauty of *M. wilsonii*'s flower with the hardiness of *M. sieboldii*. He reports the two seedlings obtained from the cross differ from the seed parent in having "larger, more oblong-obovate leaves and a remaining long-silky hairiness, particularly on the petioles." He feels the *M. sieboldii* specimen he used as a seed parent is especially hardy and probably Japanese in origin. "The Korean (and Manchurian) type often starts flushing too early," he says, and gets more or less damaged, or even killed by late, hard frost in April-May in Sweden. Mr. Nitzelius collected several specimens of *M. sieboldii* during 1976 in Japan and Korea.

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