



# Newsletter

of the **American Magnolia Society**

President: John M. Fogg, Jr.  
Morris Arboretum, Philadelphia 18, Pa.

Secretary-Treasurer: D. Todd Gresham,  
103 Frederick St., Santa Cruz, Calif.

## Three Paces Forward

JOHN M. FOGG, JR.

*Morris Arboretum, Philadelphia, Pennsylvania*

IN THE PRECEDING ISSUE (Volume 4, Number 1) of this NEWSLETTER your president described in some detail his futile efforts to compile a Finding List of Magnolias to assist the members of this Society in locating their desiderata. At the same time he issued an invitation to individuals and nurseries to submit lists of their offerings.

The response, while not overwhelming, has been most gratifying and should encourage others to follow suit.

Our fellow member, Mr. Henry J. Hohman, of Kingsville Nurseries, Maryland, has supplied us with a magnificent list of 47 species and varieties which he has available and states that he will be happy to quote sizes and prices upon request.

Another member, Mr. James Gossler, of Springfield, Oregon, presents a shorter but very choice list and says that although most of his plants are container grown he would prefer shipping in the dormant season.

And, finally, our indefatigable Secretary-Treasurer, Mr. D. Todd Gresham, of Santa Cruz, California, has prevailed upon W. B. Clarke & Co. of San Jose, California, (a wholesale nursery) to sell plants to members of our Society upon the following conditions:

- a) All plants to cost \$7.50 each, postpaid.
- b) Members should send their lists and money to Mr. Gresham *at once*.
- c) Mr. Gresham will go to Clarke's Nursery, select the plants and assemble the orders for shipment as soon as the plants are dormant.
- d) Items not available on 1967 order will be filled from the 1968 crop.

Thus, it will be observed, three important sections of the country are represented in the lists which follow. It is hoped that by the time the next NEWSLETTER goes to press we shall be able to publish a list emanating from the south-eastern states.

KINGSVILLE NURSERIES, KINGSVILLE, MARYLAND 21807  
acuminata

Ashei  
cordata  
cylindrica  
denudata (conspicua)  
Fraseri  
grandiflora  
grandiflora 'Gallissoniense'  
grandiflora 'Kingsville Fastigate'  
grandiflora 'Miss Bogue'  
grandiflora 'Praecox'  
grandiflora 'St. Mary'  
grandiflora × virginiana (Freeman hybrids)  
Kobus  
Kobus borealis  
Kobus 'Wada's Memory'  
liliflora  
liliflora nigra  
Loebneri  
Loebneri 'Dr. Merrill'  
macrophylla  
obovata  
officinalis 'Biloba'  
salicifolia

*Magnolia × Watsonii*  
Gulf Stream Nurseries, Wachapreague, Va.  
Photo: Dr. John M. Fogg, Jr.





*Magnolia Kobus* var. *borealis*  
Rochester, N. Y.  
Photo: Dr. John M. Fogg, Jr.

This figure was inadvertently omitted from Volume 4, No. 1, where it was intended to illustrate Mr. Savage's article on "Magnolias in Michigan," page 2.

salicifolia 'Elsie Frye'  
Sieboldii (parviflora)  
Soulangiana  
Soulangiana 'Alba'  
Soulangiana 'Alexandrina'  
Soulangiana 'Amabilis'  
Soulangiana 'Burgundy Rose'  
Soulangiana 'Candolleana'  
Soulangiana 'Dodd #4'  
Soulangiana 'Grace McDade'  
Soulangiana 'Lennei'  
Soulangiana 'Lombardy Rose'  
Soulangiana 'San Jose'  
Sprengeri 'Diva'  
stellata  
stellata 'Rosea'  
stellata 'Waterlily'  
tripetala  
Veitchii  
virginiana (glauca)  
Watsonii  
Wilsonii

JAMES GOSSLER, 1200 WEAVER ROAD, SPRINGFIELD,  
OREGON 97477

Campbellii  
cordata  
denudata  
grandiflora  
macrophylla  
obovata  
salicifolia  
Sargentii 'Robusta'  
sinensis  
Soulangiana  
Sprengeri 'Diva'  
stellata  
Thompsoniana  
Veitchii  
virginiana

Watsonii  
Wilsonii  
W. B. CLARKE & CO., SAN JOSE, CALIFORNIA  
Campbellii  
Campbellii mollicomata  
Delavayi  
denudata  
grandiflora 'St. Mary'  
liliflora 'Gracilis'  
Loebneri 'Dr. Merrill'  
salicifolia 'W. B. Clarke' (New)  
Sargentiana 'Robusta'  
Soulangiana 'Lennei'  
Soulangiana 'Lennei Alba'  
Soulangiana 'Lennei Early'  
Soulangiana 'Rustica Rubra'  
Soulangiana 'San Jose'  
Sprengeri 'Diva'  
stellata  
stellata 'Rosea'  
stellata 'Rubra'  
stellata 'Waterlily'  
Thompsoniana  
Veitchii  
Veitchii 'Rubra'  
Wilsonii  
Related genera  
Drimys Winteri  
Michelia Doltsopa  
Michelia fuscata



## Magnolias In Michigan

### PART III

PHILIP J. SAVAGE, JR.  
Bloomfield Hills, Michigan

#### THE SWEETBAY MAGNOLIA

THERE IS ATTAR OF ROSES IN IT. There is certainly lemon and perhaps orange, and more than a hint of iced tea. As Louise Wilder wrote in her wonderful book "The Fragrant Path", *Magnolia virginiana* has "one of the best of outdoor scents—cool and fruity and sweet." If anything, this is an understatement.

With a little care in pruning, this type species of our favorite genus makes a graceful, tall shrub in the northern states. Here in Michigan, the commonest trade form is just about as arctic as *Soulangiana*, and holds many of its glossy, dark green leaves until the Christmas season. Like most species that grow in swampy places in nature, the sweetbay likes its soil moist but not soggy, and prefers sand to clay. If you can mix a liberal amount of good sphagnum peat into rich sandy loam, you have its ideal soil.

The older books on horticulture list several regional forms, or perhaps old cultivars of this species, including *longifolia*, *sempervirens* and *grandiflora*. Although these seem to have become lost, the species is a variable one, and I have noted some forms in the past thirty years that seemed distinct enough to be propagated as improved varieties.

Bailey's "Cyclopedia of Horticulture" describes the flower of *M. virginiana* as having "nine to twelve" petals, and this number has been widely repeated by writers who have used

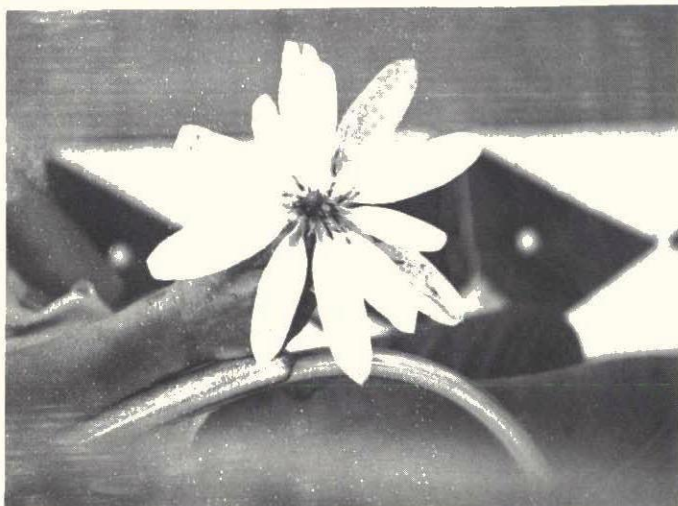
this excellent work as a reference. I don't wish to be a "nit picker," but almost all the typical flowers of this species that I have examined through the years have had eight petals, plus three papery, greenish and very distinct sepals. Wild plants I have seen in New Jersey seemed entirely uniform in this respect. A few forms in the trade show a tendency toward the production of a few petaloid stamens, and I have one strain in which this is the rule rather than the exception. I have had blossoms with as many as sixteen true petals, plus one or two wide, flattened stamens, and the flower is definitely improved by such "doubleness."

Vigorous plants of sweetbay often commence flowering the third year from seed, and the flower buds themselves show a surprising variety. Under optimum growing conditions, fat, furry flower buds are formed on the tip of each terminal twig, giving a superficial appearance almost like the so-called precocious flowering Magnolias. The flowers contained in these actually open before the leaves are fully developed. Buds on smaller side branchlets lack this pubescence and are relatively tiny, but develop to full size and flower from two weeks to two months after the earliest ones, providing an unspectacular but wonderfully long season of bloom. I have had a few plants that regularly formed two terminal flower buds on each twig, the smaller bud growing from the base of the peduncle of its big brother, and opening to the same size about two weeks later.

Some sweetbays have a greenish tinge to the base of their petals. In others this area is cream colored, and in one variety at least it is a very pale "angel skin" pink. I really should underline the words "very pale," so as not to give the wrong impression. Asked my wife what color she saw at the very base of the white petals, and she said, "Well, pink, I guess." Let this indicate its paleness.

Fortunately, this pinkish variant also tends to the aforementioned doubleness, and at least occasionally produces the twin flower buds. It may be that by bud selection alone these desirable characteristics could be made to occur much more regularly, and a sweetbay clone developed that would bring this pretty little native back to the position it held prior to its eclipse by more spectacular Asiatic relatives.

Back in 1947 Mr. Oliver Freeman sent me a small plant of his *grandiflora* × *virginiana* hybrid for a hardiness test. Foolishly I planted it in the open instead of against a



*Magnolia tripetala*  
Photo: Philip J. Savage, Jr.

masonry wall, and it survived only two years. The plants of 'Freeman' in the U. S. National Arboretum are really magnificent ornamentals, beautifully columnar in habit and with the true sweetbay scent to their far larger flowers.

Sweetbay grows to sawtimber size in Florida, and actually makes up an appreciable percentage of the "Magnolia" lumber produced by the small sawmills of that state. I am sure if this Magnolia had been discovered in Western China by Forest or Farrer or Wilson, it would still be regarded as two, and possibly three distinct species.

#### AN UNUSUAL UMBRELLA TREE

*Magnolia tripetala* looks as if it came straight from the tropics. Its huge whorled leaves and polished brown twigs are interesting and exotic, and when the surprising winter hardiness of this tough mountaineer becomes better known, this species should come into much wider use in northern state landscape planning.

There are a few large trees of this Magnolia in the Detroit area which have taken forty or more winters without damage, and regularly produce ample crops of seed.

A few years ago I lined out some *tripetala* seedlings for use as understocks. One was exceptionally vigorous and symmetrical and I moved it to a "specimen" spot on the lawn. This spring it produced its first flowers (five), and they were unusual for their size, and in having sixteen, rather than the usual six, petals, plus of course the three papery green sepals that must have suggested the species name. When they opened out flat, these flowers were dinner plate size, as shown in the very dark photograph attached, and while their odors close up is unattractive to most people, it is milder than that of *tripetala* trees I have had through the years. On the breeze, at a little distance, it is actually quite pleasant.

#### MAGNOLIA GRANDIFLORA IN THE NORTH

The high ornamental value of our beautiful evergreen *M. grandiflora* is known throughout the warm and temperate areas of the world. Even in southeast Asia and Indonesia, where many splendid species of *Magnolia*, *Michelia*, *Manglietia* and *Talauma* are common forest trees, we find *M. grandiflora* flourishing in the parks and public gardens, and lining avenues of those cities where only "mad dogs and Englishmen go out in the noonday sun."

What a pleasant surprise it is, therefore, to find large and perfect specimens of this super-adaptable tree thriving, without protection, in Cincinnati, Ohio, at beautiful Spring Hills Cemetery, in a climate where zero to five below is recorded nearly every winter.

Even in Michigan *M. grandiflora* will survive the cold, as such, but in open ground the trees are injured and killed by dehydration. The winter wind and sun licks up moisture from the big evergreen leaves, while the roots, imbedded in rocklike frozen ground, simply can't replace it fast enough. If you cut off the drying wind, limit the winter sun, and keep the soil from freezing deeply, you can grow selected clones of this species very well in the northern tier of states. Obviously, the easiest way to provide such an environment is to grow the tree near or espaliered on the north or east wall of a heated, masonry building.

I have a young plant of the clone 'St. Mary' growing close to the north wall of the house. It has survived three winters and last year produced a normal sized flower, huge by comparison to its skinny little trunk.

## MAGNOLIA SIEBOLDII

Back in the thirties we got a plant listed as *M. parviflora* from one of the eastern nurseries just to see what it looked like. It survived and grew in an unhappy sort of way, killing back at the tips every winter, but finally flowered.

I can remember thinking that Magnolia "poor-flower" was a perfect name for it. Six white petals surrounding an outside and slightly vulgar looking gynoecium was not enough to pay its rent and it ended up on a brushpile.

Ernie Stanton had a similar plant at Westcroft gardens which showed an anthracnose-like leaf burn every summer and was also given a "Viking's funeral."

In 1946 I got a shipment of Magnolia liners from Bobbink and Atkins in New Jersey, which included twenty-five *M. Sieboldii*. I knew this was the same as *parviflora*, but had a couple of customers who liked unusual shrubs and thought this might interest them. I kept two plants at home which grew very well in a peaty sand soil and were not damaged by winters or by leaf necrosis.

When these plants bloomed the flowers were really beautiful, and a vast improvement over any I had previously seen. They were at least twice as large, semi-double, with twelve to sixteen petals as white as a dress shirt, and with scarlet stamens and anthers in nice proportion to the size of the flowers. When I moved to my present home eight years ago I had to dig and ball what Magnolias were of movable size during midwinter, and lost most of them including these *Sieboldii*.

Var. *semi-plena* is so far superior to the usual six-petaled trade forms that it is really the only one worth growing. A fine color illustration of this variety is shown in President Jack Fogg's excellent Magnolia article that was published in the February 1965 issue of Horticulture Magazine. A good print of the same clone is in the files of the J. Horace McFarland photo and slide collection. There is, or used to be, a plant of this variety in the Brooklyn Botanic Garden. I hope the Morris Arboretum has it, so we Society members can help to preserve this exceptional clone and return it to the nursery trade.

In the March, 1940 issue of the Journal of the Royal Horticulture Society, the late Lord Aberconway described the Magnolias in his wonderful garden at Bodnant, and mentioned a good form of *Sieboldii* acquired long before from the Veitch Nurseries of Chelsea. He also mentioned



*Magnolia grandiflora*  
Photo: Philip J. Savage, Jr.

that the form 'Semi-plena' from Japan produced "a very poor single flower, and was promptly scrapped." It is a pity that this great gardener did not have the real 'Semi-plena.' He would have been delighted with it.

Arthur de Carle Sowerby told me in a letter some years ago that he had found huge shrubs of this Magnolia in the underbrush along the north bank of the Yalu river, in Manchuria, and also in the hills south of Mukden at latitude 41° north. This strain should be extremely hardy, and is probably the northernmost Chinese Magnolia.

## Cold Tolerance Of Three Magnolias

PHILIP G. SEITNER  
Chicago, Illinois

AMONG THE MAGNOLIAS whose limits of tolerance to cold have seemed open to question are *Magnolia* × *Watsonii*, *M.* × *Thompsoniana*, *M. Dawsoniana*, and *M.* × *Veitchii*. Of these *M.* × *Watsonii*, *M.* × *Thompsoniana* (presumably from the original cross around 1800), and *M. Dawsoniana* have been growing at North Manchester, Indiana, for over ten years and *M.* × *Veitchii* has been given an equal trial. *M. Dawsoniana* has the misfortune to be shaded by a young *Taxodium* and *Magnolia macrophylla* so that its potential has probably had little opportunity for expression. While the environment could not be described as "protected" in the usual sense, since none are actually proximal to buildings, they are within the environs of a town. Nevertheless, each of these has been exposed repeatedly to temperatures below 0°F and on a number of occasions to temperatures of -18° and -20°. Ordinarily, these most severe temperatures persist only briefly, sometimes during the coldest hours of one night, seldom more than one or two days. To lend relativity to this, it might be pointed out that, however brief, that temperature is just beyond the tolerance of many plants; for example, *Paulownia* and *Albizia* both make good growth over years with mild winters, only to have the tops utterly destroyed by the next exposure to subzero temperature. Such plants are therefore only continuous sources of frustration. The three Magnolias in question have been given no top protection for several years, although, as a gesture, a modest mulch of leaves is placed around their bases in early winter.

*M.* × *Watsonii* and *M.* × *Thompsoniana* have never shown winter damage and, at the time of writing (Feb. 27, 1967), near the end of an unusually severe winter with periods of subzero temperatures, the buds of both plants are enlarged as they usually are at this time. *M. Dawsoniana* suffers some terminal bud and green bark damage during the most severe winters, but most frequently emerges unscathed, too; such terminal bud destruction is usually rapidly obscured by vigorous axillary bud replacement.

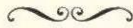
A greater cold hazard these three face is a late spring freeze, which can, of course, occur in far milder climates. (Freeze-ruined *Magnolia* × *Soulangiana* flowers and foliage have been personally observed in Baton Rouge, Louisiana, and Washington, D. C.). The spring of 1966

provided an excellent example, when the earliest foliage had all to be replaced and many soft terminal buds were killed, along with whatever flower buds had emerged.

*M. × Thompsoniana* blooms more generously each year, *M. × Watsonii* began flowering in 1964, and *M. Dawsoniana*, true to its reputation, has never suggested it knows how, but its foliage and form still justify growing it.

*M. × Veitchii* has not succeeded, exposed to the same conditions. Even though it is not evergreen, like *M. grandiflora*, it has suffered enough winter damage, even with top protection, so that it eventually perished. In both of two trials, death of *M. × Veitchii* occurred during mid-summer while trying to recover from the last winter's damage. These attempts should be interpreted only as indication, not proof, that *M. × Veitchii* will not survive with the other three just discussed, but personal observations would not encourage subjecting this rare plant to a third experiment; it is recommended that the few that are propagated be left for gardens of milder climates. These observations do suggest, however, that a carefully established *M. × Veitchii* might tolerate climates with temperatures well below freezing, but where the fine limit between 0° and 32° lies is not clear and trials within this range seem justified. Possibly the most *Veitchii*-like of Mr. Gresham's hybrids or of their offspring will prove to be reasonable substitutes for *M. × Veitchii* in areas with sub-zero temperatures.

It is not to be construed from this note that the three established Magnolias discussed can be treated as cavalierly as *M. Kobus*, for example, when young. It is recommended that, for persons desiring specimens and living in areas experiencing the temperatures described, the best investment would be in purchasing well established plants with adequate hard wood and on their own roots (or if grafted planted deep to encourage self-rooting), followed by full winter protection for the first years.



## Impressions Of Magnolia Dawsoniana

JAMES GOSSLER  
Springfield, Oregon

I WOULD LIKE TO DISCUSS an Asiatic *Magnolia* which I believe to be an exceptionally worthy species, in particular *M. Dawsoniana*. I added a young grafted specimen of *M. Dawsoniana* to my collection some eight years ago. I presume that the plant was propagated by the Clarke Nursery in California which has been the fountainhead of Asiatic Magnolias for many years.

Very much to my surprise last year, my 10-foot tree *M. Dawsoniana* presented its first floral display of 15 fine blossoms. After reading the description and seeing the pictures of this plant in G. H. Johnstone's "Asiatic Magnolias In Cultivation," I expected to see a rather lax, floppy, weak-colored flower. Much to my delight, after witnessing blooms for two years and seeing two different trees flower, I am pleased to report the exceptional attributes of *M. Dawsoniana*.

The color of the long tapered buds on the two trees observed here is a rich mauve pink which is just as delight-

ful a shade of that of the delightful *M. Sargentiana* 'Robusta'. Although the petals tend to droop a bit after being out for several days, they are not as ragged as the one pictured in the Johnstone photograph. The flower size averages 8" in diameter and some exceed 10".

As Johnstone reports, *M. Dawsoniana* quickly goes into profuse flower production after the tree has reached its first year of flowering activity. This ability of prolific flower production is exceeded only perhaps by *M. × Veitchii*.

I believe my largest tree to have flowered in 10 years from graft. Another tree belonging to Mr. Elmo Chase of Eugene, Oregon, was somewhat older in reaching flowering maturity; however, it bore 200 blooms in its second year. Strangely enough, a like-sized tree of the Chase one, in the garden of Dr. Phetteplace has never offered a single flower. All of these trees have been growing in deep, rich garden soil in full sun and have been putting on vigorous amounts of new growth. Recently I added to my collection several plants of this species which were severely root-bound in containers. Strangely enough, some of these plants put on flower buds even though only five feet tall and less than 10 years in age from graft. This container binding to produce early flowering has also been noticed in *M. Campbellii* in the Strybing Arboretum.

Mr. Lewis Palmer in a recent RHS Journal Bulletin<sup>Ⓞ</sup> suggests the technique of placing a tourniquet on balky and slow-maturing Magnolias to shock them physically into flower. Mr. Palmer's attempt with *M. Kobus* was quite successful and apparently did no permanent damage to the tree. He suggests applying a girdle to pinch into the main trunk of the tree in July when the sap is well up and cinching the bark tightly for about 8 to 10 weeks. Care should be taken not to kill the tree by too powerful a squeeze and to remove the apparatus before fall. The theory is that the tree upon being restricted turns to procreative activity instead of entirely vegetative production. Mr. Palmer states that after once gaining flower production, the tree proceeds into normal flowering each year thereafter.

This species is prone to tie up with cross branches, so I recommend leaving only one leader. If two or three leaders are left, a cross-up of branches occurs and die back is usually the resultant complication. In conclusion, if you are fortunate to live in a milder section, I recommend *M. Dawsoniana* as an excellent addition to your garden.

ⓄJournal of the Royal Horticultural Society, Jan. 1967 . . .  
*A Cold Chalk Garden Throughout the Year*, by Hon. Lewis Palmer, V.H.M.



*Magnolia tripetala*  
Morris Arboretum  
Photo: Dr. John M. Fogg, Jr.

# A Plea For Quantification Of Breeding Data In Magnolia Hybridization

FRANK S. SANTAMOUR, JR.  
*Morris Arboretum*  
Philadelphia, Pennsylvania

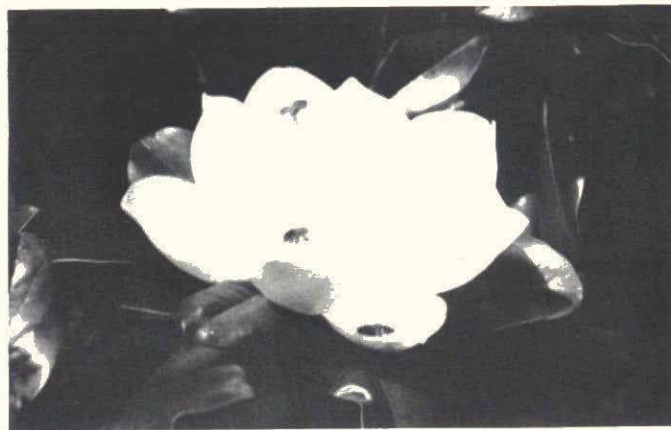
INTEREST IN THE ARTIFICIAL HYBRIDIZATION of Magnolias has increased tremendously in the past ten years. The formation of the American Magnolia Society attests to this fact. There can be no doubt that the intensification of work with Magnolias, by both professional and non-professional plant breeders, will lead to findings of considerable scientific interest as well as the development of new and unusual cultivars to enhance the beauty of our landscape.

Now, at this stage of rapid development, is the time to correct what may be a major fault in the reporting of results of hybridization—the lack of quantitative data. The omission or neglect of such data is not peculiar to Magnolia breeders, but is found, as a rule, throughout horticulture. The problem is, I suppose, that most of us are interested primarily in creating new and better plants. And it is true that even a single hybrid plant that shows a significant improvement over the ordinary can be vegetatively propagated virtually indefinitely. So why all the fuss about details? We should bear in mind that one of the major differences between the work of Mendel and that of his predecessors was that Mendel simply *counted* the numbers of plants of various types.

The publication of breeding results, as with any publication, constitutes a *permanent* record for posterity to consult and evaluate. However, when incomplete information is published, we are losing valuable data that may be of great scientific and practical interest. Much of the data necessary for a fairly complete report are already in the hands of the breeder at the time of publication, while certain other types of information require additional work.

The following information should be considered as a basic minimum in reporting on hybridization. First of all, it should be made quite clear which species or cultivar was used as the female parent and which was the male. The direction of the cross is extremely important since, because of differences in chromosome numbers or incompatibility factors, certain crosses can be made only, or at least more easily, in one direction. When designating hybrids where the direction of the cross is known, the female parent should be listed first in the hybrid formula. In certain cases, where a putative (supposed) hybrid has arisen through natural hybridization, the tree from which the seed was harvested is considered the female parent. Other important data are the number of flowers pollinated, number of fruits matured, number of sound seed obtained, and the number of seedlings germinated.

In reporting individual crosses, there is room for more detail. The location, source, and/or tree number of the parents could be mentioned. The number of individual trees used in the crossing program, especially when com-



*Magnolia grandiflora*  
*'Praecox Fastigiata'*  
*Barnes Arboretum*

Photo: Dr. John M. Fogg, Jr.

pared with each other, would be a guide to possible intraspecific differences in crossability. Of the seedlings germinated, how many were not hybrids? There are, no doubt, other details that would be of importance in specific cases.

At the same time, data which are pertinent to the parents under study could be included. The relative seed set to natural or controlled self-pollination, intraspecific crosses, and the success or failure of other male parents on the particular female tree(s) is of great interest. I imagine that most of us could fill a page or so with crosses that did not work out, but there is little demand for "negative" results. For instance, I would be reluctant to mention, except in correspondence, that in 1965, 11 of 17 pollinations of *M. virginiana* with *M. Sieboldii* produced fruit, yielding 58 seeds, none of which germinated. However, if I were reporting on some successful crosses on *virginiana* or summarizing several years of work, these data could reasonably be published.

There is never *enough* detail.

For example, in 1966 I self-pollinated six flowers of an isolated specimen of *M. acuminata* at the Morris Arboretum. Five fruits matured and gave an average of 8.2 seeds per fruit. Five open-pollinated fruit selected at random had only 2.2 seeds per fruit, indicating that lack of adequate pollination under natural conditions might result in too low an estimate of self-fertility in this individual. But that is not the whole story. In order to get a more accurate picture of natural, apparent self-sterility, I should have tagged from 20 to 50 flowers prior to anthesis to determine the proportion of flowers that develop into mature fruit. From past experience I would estimate that 90 percent of the fruits abort before maturity. Using the above data and observations as a guide then, I could expect 22 seeds per 100 flowers under natural conditions but 683 seeds per 100 flowers when artificially self-pollinated. Quite a difference in seed production potential, but how nice it would be to have actual data to back up this calculation.

Who will profit by the inclusion of such comprehensive data? First, there is your fellow Magnolia breeder, if not of this generation, then maybe several generations hence. These data tell him something about the relative ease of obtaining a particular combination and will be used as a guide in planning his own work. Then there are the many

botanists who are studying plant distribution, introgression, taxonomic affinities, incompatibility, and other facets of botanical science. Who knows when, and in what way, your data may influence the work of others? Finally you, yourself, will benefit. It is a fact of life that the inclusion of numerical data in support of an assertion lends stature and credibility to the work and its author. Sooner or later, your work will become part of a compilation of "Tree Hybrids" or some such compendium, and the treatment given to your publication will, in large measure, reflect the data which you have put into it.

Actually, the time is growing near when some sort of status report on *Magnolia* hybridization should be made. It is hoped that the compiler of such information, hopefully a member of our Society, will be able to elicit some quantitative data from the originators of earlier hybrids in order to increase the value of such a summary.

ADDENDUM: There may be some question as to the proper time to report on successful interspecific hybridization. We have all had certain crosses from which seed was obtained and did not germinate, or when germinated proved to be of the maternal species. Also it is not uncommon for a seedling of almost certain hybridity to be lost to the ravages of weather and mishandling before reaching sexual maturity. Since *Magnolia* is essentially a flowering tree, it seems advisable to delay in reporting success until the first flowering of a hybrid. Of course, in the final report, or in any summary of breeding work, all data bearing on success or failure of crosses pertinent to the case in question should be reported.



## Trial by the Royal Family Of Magnoliaceae

D. TODD GRESHAM  
Santa Cruz, California

AN UNUSUAL EXPERIENCE FOR MORTAL MAN: Trial by the Royal Family of Magnoliaceae.

On 23 May 1964, I awoke with a start. The morning sun was bright and cheerful. Objects that surrounded me I had known for many years, but a strange feeling persisted that my ethereal self had been on a long journey to an

### Hybrid *Magnolia* Seed

- a) Ripe seed cones
- b) Seed enclosed in red pulp
- c) Depulped seed ready to sow or stratify

Photo: D. Todd Gresham



unknown land, under most unusual circumstances. Reaching for the crutch of the absent-minded, my notebook, I wrote with feverish haste to record the fragments that occurred to me in flash-back, as the LSD-like panorama was revealed to my probing.

I stood alone in a secluded valley, which was watered by a rushing mountain stream and surrounded on three sides by gently sloping hills. The floor of the valley was carpeted by lush grasses and drifts of bright-colored spring flowers. *Primula florindae* crowded the stream's margins. Species *Begonia*, *Convallaria*, *Paris*, with ancient fern clumps abounded in the shaded areas. Curious Arums in spathe and spadix of varied color and pattern sought the shelter of shrubs. On the lower slopes *Aucuba*, *Skimmia*, flashes of scarlet *Rhododendron arboreum* with the overpowering splendor of *Rhododendron grande*, were everywhere. Leaping from branch to branch of sub-shrubs were sweet scented vines of *Clematis Armandii*.

Then, as the rising sun lit the higher slopes, my satiated sense became aware of a wondrous sight. The slopes were massed in showy array with thousands of *Magnolia* and *Michelia*, all in perfect blossom. Each species was grouped, apparently according to an acknowledged order. Their mingled perfume was narcotic; bright feathered birds dazzled the eye as they flew in and out of the sunshine, singing unfamiliar songs. My unsteady reason distinguished the species, the order of the various groupings. I had a feeling this was a vast open-air palace—a lowly human at the Court of the Plant Kingdom's Royal Family.

The sun was high now, and above the drone of nectar-seeking bees, a loud, resonant voice speaking English startled me with these words: "You, D. Todd Gresham, have been transported here by Royal Command to stand trial for your treatment of our friends and relatives. You will advance, stand before King *Sargentiana Robusta* and be given a fair trial and judgment."

Immediately, by some magic, I found myself standing, dwarfed and insignificant, in a clearing before a magnificent *Magnolia Sargentiana Robusta*. The huge, spectacular blossoms were an unusual blue-violet and showed kingly condescension by bending slightly from an aloof horizontal to allow me audience.

The King's voice was kindly and I now found myself relaxed and at ease with the surroundings. "We have bestowed upon you an insight into many of our occult rituals. You have not been brought here for punishment, but rather to discuss how you may better serve our tribe. Few mortals have witnessed a Royal Assemblage of *Magnolia*. I shall introduce you to my Court:

"My Queen, Her Royal Highness, *Campbellii*." I bowed to an outstandingly gorgeous rose-pink form, cup shaped blossoms upright and unbending; regally cold, for sheer breath-taking beauty unrivalled in the world of flowers.

"The heir to my throne, Prince *Mollicomata*." Strong, handsome, a hint of *Sargentiana Robusta* carriage, clothed in royal purple petalage. I was strongly attracted by the evident quality and masculine character.

"The Princess *Dawsoniana*." How lovely! a charming feminine form, warm flesh pink blossoms tilted delightfully with youthful curiosity the better to observe a strange man-creature. During the audience I found my eyes returning many times to observe and record this uncommon loveliness.

"Princess Sprengeri Diva." Here there was a suggestion of the Queen Mother's influence in coloring and carriage, but a more informal and democratic edition.

"My Captain of the Guard and his Lieutenants." The Captain, *Rostrata*, was an impressive tree, huge blue-green foliage thickly felted with gold-down. His Lieutenants, *obovata* and *officinalis*, were magnificent large-leaved specimens capable of commanding respect and order from all vegetation.

The same dignified introduction to lesser nobles proceeded. Sturdy *Sargentiana*; cosmopolitan *denudata*; slender, darkly pretty *liliflora*; aromatic *salicifolia*; floriferous *Kobus*; starry *stellata*; the charming milk-white, shade loving *Oyama Wilsonii*, *Sieboldii*, *globosa*, *sinensis*; somber *Delavayii*; tender evergreen tropicals unknown to me; diminutive, evergreen, strongly fragrant bloomer-in-the-night *coco*, standing shyly in the shelter of larger species, with shining *nitida*.

"The Clan *Michelia*." Wonderful, fragrant, evergreen allies of the *Magnolia*, their axillary flowers borne in profusion. Sulphur yellow *velutina*; ivory, jasmine scented *Champaca*; banana scented *Figo*; *Doltsopa*, with large white flowers and musky odor; hardy *Compressa*.

Frankly, my enthusiasm for the ceremony began to wane as my knees weakened from the physical strain and emotional excitement of the visit. Introduction to the oriental members of the Family completed, the King proceeded to the American representatives, without pause.

"Mr. *Macrophylla* and his wife, *Grandiflora*." The Americans were congregated on the valley's south slopes, and though not as colorful and exotic as the Easterners, I felt a national pride in their native beauty and mien. Surely *macrophylla*'s Holy Grail cups and magnificent foliage did not suffer by comparison with the oriental splendor. *Grandiflora* stood proudly, superb dark evergreen raiment accentuating alabaster chalices.

"Master Ashe and Miss *Virginiana*." Good looking youngsters, Ashe strongly resembled *macrophylla* in foliage and flower. *Virginiana*'s delicate oval foliage and spicily fragrant white cups favored *grandiflora* in reduced proportion.

"*Fraseri*, *tripetala*, *pyramidata*, *dealbata*." Handsome, large foliaged trees, I recognized the first three from visits to the Southeastern states where they are native. The Mexican *dealbata* was unknown to me, but I noted a strong resemblance to *macrophylla*. As with the evergreen Easterners, there were a number of rather somber evergreen southerners from Mexico, Cuba, and Central America.

"*Acuminata* and *cordata*." *Acuminata*, a large tree, hardy as the oaks, greenish blossoms somewhat obscured by pleasant foliage. The *cordata* contingent amazed me. There was a variation of color from the light canary yellow forms to a much darker hue bordering on orange.

Noting my apparent fatigue, *Sargentiana Robusta* suggested I go to the stream side, rest, and partake of nourishment. Again, the same magic, I found myself by the ice cold mountain stream with an appetizing lunch before me. Lunch finished, drowsiness felled me. Awakening, the Voice spoke again. "The *Magnolias* have completed their deliberation, and you will appear for judgment."

*Sargentiana Robusta*'s voice was kindly, but firm. "Your position has been carefully considered and it is our opinion

that the *Magnolia* hybrids in your care must be dispersed for the good of their health and development."

Although in awe and deference I had remained silent, I now felt compelled to speak in defense of my situation. "These are troubled times for me and I do not wish to assume the added burden of shipping out my plants."

The King's voice was stern. "You have no alternative. This is our decision. Return to your home and follow my instructions for the dispersal."

Today, looking back over the events that succeeded this experience it is difficult to believe, or disbelieve, the notes recorded on that morning in May, 1964. Not superstitious or a follower of the occult, I did feel compelled to make an effort, though it imposed a hardship on me, to comply with the remembered judgment.

Correspondence with Mr. and Mrs. W. Frank Gladney of Gloster Arboretum, Gloster, Mississippi, and Mr. Tom Dodd, Jr., Tom Dodd Nurseries, Semmes, Alabama, found a sympathetic desire to plant-out and give the hybrids a place in the Gulf Coast sun.

Preparations, including a concise labeling system, were commenced. In January, 1966, shipment of 1,600 hybrid *Magnolia* to Gloster Arboretum consisted of five gallon cans; egg cans; gallon cans; and field grown plants. The five gallon cans and egg cans were shipped in cans; gallons and open ground plants were balled, their roots encased in plastic bags for packing and shipment. The hybrids were transported to Gloster, Mississippi, from Santa Cruz, California, in an air conditioned truck and trailer at 54°. The trailer measured ten feet wide by forty feet long and eight feet high.

Plants survived two days and nights enroute in excellent condition. Mrs. Gladney kindly remarked they were packed like "jewels in a jewel case." As a sequel, perhaps Mrs. Gladney will report to the American *Magnolia* Society NEWSLETTER on their arrival and planting-out at Gloster.

Shipment of 10,000 hybrids to Mr. Tom Dodd utilized the revolutionary miracle of plastic for shipment of nursery stock. Numerically this could very well be a record shipment of *Magnolia* plants by air-freight. Dormant plants were dug from flats, bare roots trimmed, watered, carefully labeled, placed in plastic bags and sealed.

Five thousand plants each were packed in two cardboard boxes, the entire shipment weighing less than 50 pounds. Flying out of San Francisco to Mobile, Alabama, air-freight, they were immediately planted at Semmes, Alabama, in containers for growing-on.

The two shipments, totalling some 11,600 hybrid *Magnolia*, are progeny of carefully controlled crosses made from 1960 through 1964 here at Hill of Doves. Parentage involves the inter- and intra-sectional fusing of the *Yulania*; *Buergeria*; *Tulipastrum*; *Rytidospermum*; *Magnoliostrum*; *Oyama*; *Theorhodon*.

It is my fervent hope that the *Magnoliaceae* are satisfied with these arrangements and will continue their surveillance and support of the program during ensuing years.

MEMBERS ARE REMINDED that the annual dues of \$2.00 for 1967 are now payable and that if they are sent directly to Mr. Gresham the Society will be spared the cost of sending out notices. Every penny thus saved will go toward getting our NEWSLETTER more frequently.