

A Pair of Queens

'Praecox Fastigiata'

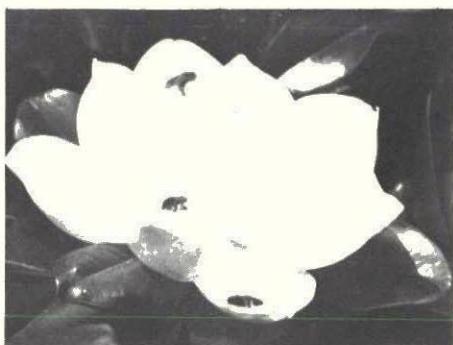
by John M. Fogg, Jr.

In June 1957, the late Mrs. Albert C. Barnes received from Henry J. Hohman, proprietor of the Kingsville Nurseries, Kingsville, Maryland, a plant labeled *Magnolia grandiflora* 'Praecox Fastigiata.' This specimen grew rapidly and in a short time became one of the showpieces of the arboretum's magnolia collection.

Two features in particular differentiate this Magnolia from most of the scores of other cultivars assigned to this species.

In the first place most of the lateral branches are relatively short and many are ascending, thus justifying the second half of the cultivar name. The result is a mature specimen which is somewhat upright and cylindrical in habit. This is a distinct advantage in a situation where space is limited and where a more spreading cultivar, such as 'St. Mary,' might lack room for normal development.

An even more attractive characteristic of 'Praecox Fastigiata' is its prolonged period of bloom. Our records reveal that the first flowers open about the middle of June whence 'Praecox', and that the plant continues to bloom until the buds are actually killed by freezing weather in October. It is often at its best in mid September. This means that our plant may



M. grandiflora 'Praecox Fastigiata' flower with bees. This photo adorns the cover of "Check List of the Cultivated Magnolias."

'Little Gem'

by Gene Eisenbeiss

As one enters the holly and magnolia plantings at the National Arboretum there stands among the magnolias a most unusual selection of *Magnolia grandiflora* named 'Little Gem.' Not by coincidence there is another selected plant of *M. grandiflora* ('Praecox Fastigiata') nearby. Although they are of similar stature, the latter is inferior in leaf color to 'Little Gem.' Neither is outstanding in a view of the overall collection of numerous deciduous and evergreen magnolias conspicuous for their large leaves and flowers. But 'Little Gem' is singular for its combination of moderate growth rate, small leaf size, and compact and fastigiate habit. Compared to other *M. grandiflora* cultivars and typical seedlings it is almost petite, an unlikely word to apply to magnolias of any kind.

The National Arboretum plant of 'Little Gem' was received from Warren Steed of



M. grandiflora 'Little Gem' branchlet and latent flowerbud in winter. Orange indumentum gives foliage a bronzed appearance.



The compact habit of 'Praecox Fastigiata' is evident in this photo of the specimen at Barnes Arboretum.

'Praecox' — CONTINUED

be seen in flower over a period of approximately five months, a performance which, to the best of our knowledge, is not equaled by any other cultivar of this species in the Philadelphia area.

Sad to relate, our fine specimen failed to survive the severe winter of 1976-77 and eventually had to be removed. Fortunately, however, we had given scions to Mrs. Carl Ray, one of our former students. She has been successful in rooting them and is generously donating a two-foot plant to the arboretum. It is our hope, therefore, that once again we may be able to exhibit to our visitors this impressive cultivar.

Mr. Hohman, from whom Mrs. Barnes obtained her plant, died in 1974. I have recently talked with his widow who admits that she unfortunately has no knowledge of this cultivar. She does not know whether it originated as a "sport" in the Kingsville Nurseries or whether Hank (as we all called him) had obtained it from some other source.

Mrs. Hohman told me that the fine specimen of 'Praecox Fastigiata', which I recall as growing near the front door of their house, is in very poor condition. It may well be that this cultivar is better adapted to the growing conditions of the Pacific coast than to the Middle Atlantic States.

Whatever its origin, 'Praecox Fastigiata' certainly appeals to us as one of the most desirable variants of this greatly beloved and widely cultivated species of *Magnolia*.

Since we were desirous of learning something of the distribution of this plant in cultivation, we requested the Plant Sciences Data Center in Mt. Vernon, Virginia, to provide us a statement of the botanical gardens and arboreta in which it may be found. They have informed us that, to the best of their knowledge, ours is the only cooperating institution in which 'Praecox Fastigiata' is currently growing.

We shall therefore be very grateful if anyone reading these lines can provide us with additional information concerning its occurrence.

Jack Fogg, founder and first president of the AMS and first editor of this newsletter, is director of the Arboretum of the Barnes Foundation, Merion, Pennsylvania, and also serves as International Registrar of *Magnolia* cultivar names.

'Little Gem' — CONTINUED

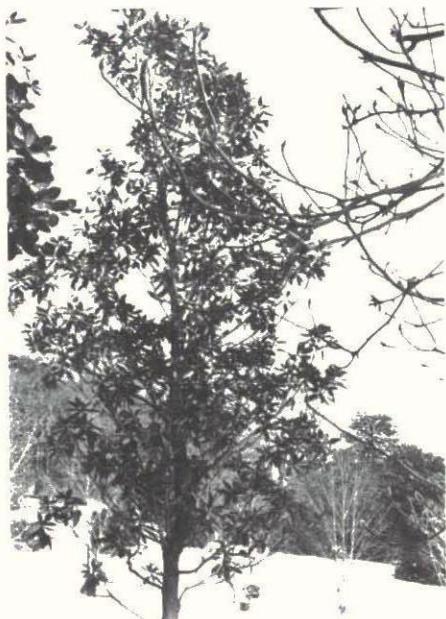
Steed's Nursery, Candor, North Carolina, in 1967 as a two-foot plant. It is now 20 feet tall and 10 feet wide with a narrow erect habit. The side branches are ascending and more compact than most *M. grandiflora*. The leaves are small, $7\frac{1}{2}$ inches (1.88 dm.) long and $2\frac{1}{2}$ inches wide, and elliptic in shape a very even taper at each end. The color is an excellent dark green with a high gloss on the upper surface. A color measurement was made for the upper leaf blade of Green Group 141A, Royal Hort. Soc. Colour Chart 1966. This reading may or may not be of diagnostic value, since few leaf color readings are available. The under surface of the leaves is covered with a brown, slightly reddish, dense indumentum of the texture and color of fine suede. This indumentum also covers the petiole, buds and shoots of the current season's growth.

The white flowers are somewhat smaller than the average *M. grandiflora*, measuring up to 8½ inches (2.2 dm.) across, but although small they stand out well against the small leaves.

It has been suggested that 'Little Gem' may be a hybrid with *M. virginiana* because of the small size of the leaves and flowers as compared to the usual *M. grandiflora*. It also has the continuous summer flowering period typical of plants of this hybrid combination of *M. grandiflora* × *M. virginiana* in this region. In contrast, *M. grandiflora* in this area begins to flower in June and puts out only occasional flowers after July.

Studies of F_1 , F_2 , and F_3 hybrids of *M. virginiana* × *M. grandiflora* show a preponderance of *M. grandiflora* characteristics, but flowers are smaller and appear continuously from early June to frost. The *M. grandiflora* appearance is probably due to the dose of the hexaploid complement of *M. grandiflora* compared to the diploid dose from *M. virginiana*. 'Little Gem' differs in other respects from the hybrid plants. Its carpel count is comparable to *M. grandiflora*, averaging 66, compared to the hybrids with an average count of 50 carpels per flower. These figures are derived from extensive unpublished data at the National Arboretum. Even more convincing is the high fertility of 'Little Gem' which consistently produces a heavy crop of seed as opposed to all hybrid plants of *M. virginiana* × *M. grandiflora* observed which are highly sterile and rarely produce any seed. The high sterility is due to uneven pairing of chromosomes in the hybrid plants which result in aberrant and abortive pollen and egg cells.

Cytological study of 'Little Gem' would probably reveal a normal hexaploid chromosome count as in *M. grandiflora*, and even a normal chromosome reduction in pollen and egg cell production. Such factors would establish, as suspected here, that 'Little Gem' is not a hybrid. From limited reports only a little is known about the hardiness of 'Little Gem.' During the severe winter of 1977-78 when many *M. grandiflora* from Virginia north were injured, especially those in exposed sites, outright kill of 'Little Gem' was reported in Glenn Dale, Maryland, and in Philadelphia. The single large plant at the National Arboretum came through in good



Short, upswept branches are evident in this photo of 'Little Gem' at the National Arboretum. It is not so dense as 'Praecox Fastigiata.'

condition. It should be noted that the Glenn Dale and Philadelphia plants, though established from transplanting were still small in size, not over 4 feet, (1.2 meters).

Most visitors take an instant liking to the general diminutive aspect of 'Little Gem' and frequently ask where it can be purchased. Unfortunately it is not widely available, as it should be. The National Arboretum has distributed many plants in the past and hopes commercial growers will recognize the merits of this fine plant.

An additional justification for nursery production is that 'Little Gem' is among the easier rooting selections of *M. grandiflora*. Although producing *M. grandiflora* from cuttings is the principal means of multiplying named cultivars, it is inadequately appreciated by nurserymen and the homeowner that only by growing this species from rooted cuttings can flowers be obtained at a young age, 2 to 3 years from rooting, and on small plants.

It's unfortunate that the *M. grandiflora* plants seen in nurseries and gardens are