

## Another Look at 'Edith Bogue'

by Richard B. Figlar

Although well over a hundred cultivars of *Magnolia grandiflora* have been registered, *M. 'Edith Bogue'* is possibly the only one currently available in the trade selected exclusively for its hardiness.

Guy Nearing, in an article in *Gardeners Chronicle of America* in 1941, seemed convinced that 'Edith Bogue' was far more hardy than "countless seedlings" that had been tried in the area of northern New Jersey, especially since the original tree in Montclair, New Jersey, had flourished for 30 years without significant winter damage. Now, in 1983, this remarkable tree still stands, healthier than ever at about 60 feet in height and with a 35-foot spread. Montclair is in USDA Zone 6b.

Several more plants--some as tall as 20 feet--are being grown successfully in other parts of northern New Jersey with little or no leaf burn or dieback despite the unusually severe winters of 1977, 1981 and 1982. But not all the news is good. In New Castle County, Delaware (zone 7), the noted plantsman and author, William Frederick, Jr., elected to remove 'Edith Bogue' from his garden because of excessive damage from these recent winters. His experience is surprising, and suggests that other factors may be involved.

Although most of the evidence does support Nearing's hardiness claim for this magnolia, apparently 'Edith Bogue' is not uniquely hardy (that is, one in ten thousand), as Nearing surmised. In fact, within the same northern New Jersey area many fine examples of *M.*

*grandiflora* (probably unselected seedlings) are in cultivation and appear to equal 'Edith Bogue' in hardiness. In the past seven years I've been keeping tabs on many of these plants as well as many in the area of St. Louis, Missouri (also USDA zone 6b). Here are some notes on physical characteristics that encourage hardiness and good winter appearance of 'Edith Bogue' and other hardy seedlings of *M. grandiflora*:

*Dense foliage.* The more densely foliated *M. grandifloras* such as 'Edith Bogue' tend to provide their own winter protection, that is, the outer leaves shade and protect the inner leaves from sun and wind. A crown of dense foliage also reduces loss of heat



*Magnolia 'Edith Bogue,' original tree.*



Flower of *M. 'Edith Bogue.'*

from the ground that protects the roots from excessive freezing.

*Narrow leaves.* Relatively narrow leafblades reduce the amount of twisting motion (torque) of the leaves and branches during winter windstorms. This places less stress on the petioles and thus promotes leaf retention. Besides being narrower leaved than most other cultivars, the leaves of 'Edith Bogue' are slightly revolute along the margins. This encourages snow and ice to slide off the leaves instead of sticking, thus reducing the weight burden and the open contact that can contribute to mechanical injury.

*Long petioles.* Strength of petioles is difficult to determine, but generally leaves with short petioles break away more easily than those with longer (one-inch) petioles. This is probably because bending forces are more concentrated on shorter petioles, making them more susceptible to breakage. The long petioles on the Bogue magnolia allow the bending forces to be distributed over the entire length of the petiole, resulting in less stress and breakage.

*Early hardening off.* In the case of most hardy plants, the earlier in the season they finish their growth, the more hardening off they can do to get ready for winter. On most new shoots, 'Edith Bogue' has finished its annual growth by early July.

*Good mechanical form.* Besides being more attractive, a strong tree

form provides a good defense against the extremes of northern winters. Fortunately, that trait is fairly easy to find in *M. grandiflora* clones and seedlings. 'Edith Bogue' tends to set branches at right angles to the trunk and develops into a wider spreading tree at a fairly early age. This feature could be a factor in reducing mechanical injury as well as providing heat loss protection for the ground surrounding the tree.

Especially in the more rigorous climates of USDA zones 6a and 5b, the survival chances of *M. grandiflora* can be greatly improved by cultivation practices. I recommend four commonly used practices that appear to be beneficial, in order of priority:

1. Plant out early in the season. The better "home" you can give your magnolia, the more successfully it can handle the rigors of winter. This means early planting (April) of small to medium sized plants (two to three feet) in a well prepared site--lots of humus or leaf mold or both, etc. Avoid high nitrogen fertilizers. By autumn the magnolia's root system will be healthy and firmly established.

2. Avoid winter sun. Winter sun combined with frozen ground causes more damage to *M. grandiflora* than anything else. Try to locate the planting site where winter sun is minimized and summer sun is maximized. When plants are young (one to three years old) it's also good to provide a burlap screen around them during the winter months.

3. Minimize ground freezing. Just as important as avoiding winter sun is keeping the ground from freezing too deeply. Thus, ample mulch (three to six inches) should be added temporarily to the magnolia site each winter when plants are young. The mulch can be made of almost anything as long as it can adequately insulate the ground beneath the magnolia from the effects of long cold winters. For more rigorous climates, foundation plantings

(next to warm basements) are recommended.

4. Avoid windy sites. Finally, avoid selecting open or exposed sites (that face west or northwest) for your *M. grandiflora*. Like winter sun, wind also dehydrates the plant and can cause damage. However, if the first three cultivation conditions are met, chances are the magnolia could handle a fair amount of exposure to harsh winter winds. Try to avoid such sites anyway.

*Magnolia grandiflora* is probably more susceptible to prolonged winter cold than to occasional extremely low temperatures. Many plants that can endure a short or overnight bout with -20° F temperatures can't handle a month of continuous below-freezing weather where temperatures don't even get as cold as 0° F.

Besides 'Edith Bogue,' other existing cultivars may prove hardy depending on results of more trials in USDA zone 6 areas. *M. grandiflora* 'Majestic Beauty' survived recent record cold winters in St. Louis with varying degrees of success. The large leaves present problems with defoliation. Nevertheless, many trees of this cultivar endure the harsh St. Louis climate.

*M. grandiflora* 'Victoria' is billed as a hardy clone, since it was selected at Victoria, British Columbia, in Canada. This location, however, is in USDA zone 8 with relatively mild winters as is much of the coastal Pacific Northwest where 'Victoria' is grown extensively. At present there is not enough information available to determine if 'Victoria' would be reliably hardy in zone 6 areas.

More promising *M. grandiflora* cultivars are likely to come about from the continuing efforts of several AMS members. Charles Main of Karnak, Illinois, once had 12 of 16 40-year-old *M. grandiflora* seedlings killed to the ground by the severe winter of 1977. One of these, however, survived with very little damage even though it was

out in the open with no protection. He is in the process of propagating this plant.

The work currently being done by Richard Wiser in Michigan (see article, this issue) will surely result in the selection of another hardy clone or two. Steven Gossett of New York City has been studying *M. grandifloras* growing in Boise, Idaho (USDA zone 6b). One of these is 20 years old and is 25 feet tall. He has registered it as 'Suzette,' and plans to propagate it. It has particularly small, glossy leaves.

I'm sure the search for hardier *M. grandifloras* will never end. It's to be hoped that there will be more hardy selections of *M. grandiflora* to choose from other than 'Edith Bogue.'

In the meantime, Magnolia 'Edith Bogue' is available from several sources in this country:

Dilatash Nursery, 780 Rte. 130, Robbinsville, N.J., 08691. (two to three foot plants available at nursery; does not ship).

Gossler Farms Nursery, 1200 Weaver Rd., Springfield, OR. 97477 (was not in latest 82/83 catalogue; accepts mail orders).

Laurelwood Gardens, 736 Pines lake Dr. West, Wayne, N.J. 07470 (propagates 50 to 100 plants annually; wholesale only).

Louisiana Nursery, Rt. 1, Box 43, Opelousas, LA. 70570 (listed in 82/83 catalogue; accepts mail orders).

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