

Magnolia Biondii Distribution

by Peter Del Tredici and John H. Alexander, III

Seeds of *Magnolia biondii* were brought to the Arnold Arboretum from China by Professor Y.C.Ting. The story of the collection of the seed has been told by Dr. Ting in a prior issue of MAGNOLIA (Vol. 13 (2): 19-20, 1977).

The seeds arrived at the Dana Greenhouses on September 13, 1977. On September 29, they were placed in a moist stratification medium of equal parts sand and sphagnum peat, sealed in a polyethylene bag and refrigerated at approximately 40° F. They were sown in a warm greenhouse 106 days later (January 12), and germination started on February 13. In all, 27 seedlings germinated and were transferred to containers.

Since then, the plants have spent summers out of doors and winters in the cold storage unit at the Arboretum, where the temperature remains at a relatively constant 36-40° F.

The plants have grown well, so that by the spring of 1981, they were all between two and three feet tall. Forty-eight cuttings were taken from various plants on July 1, 1981, and given a five-second dip in a solution of 5000 parts per million (ppm) Indole-butyric acid (IBA) in a mixture of 50 percent ethyl alcohol and 50 percent water. The cuttings were then stuck in a mixture of peat, sand and perlite (in a 1:1:2 proportion) and placed under intermittent mist (a 2½ second blast every 2½ minutes). Of these cuttings, 32 developed excellent root systems, one rooted poorly, and 15 failed to root.

Thirty-one more cuttings were taken July 23; 20 were given the same

treatment as above, and of these, 17 rooted excellently, two poorly, and one not at all. The 11 other cuttings were treated with Hormo-Root C, a commercially available rooting powder containing 8000 ppm of IBA in talc. Four rooted excellently, four poorly, and three failed. The root systems of the cuttings treated with the powder developed much more slowly and less extensively than those treated with the alcohol dip. It should be noted, of course, that success in rooting cuttings from young plants is usually greater than that in rooting cuttings from mature plants. That we achieved 76 percent rooting with three-year old plants does not necessarily mean such high percentages can be expected as the plants get older.

The rooted cuttings will be wintered over and 50 will be made available to members of A.M.S. in the spring of 1982. Names of the 50 recipients will be drawn by lot from among applicants about 30 days after publication of this article. A fee of \$5 is asked to cover postage and handling. Because of the scarcity of cuttings, we ask that you withhold payment until you receive a bill from Harvard University. Only parties receiving plants will be billed. In this way, you will not be paying for something you may not receive for a year. If you do not receive a plant in the spring of 1982, your order will be kept on file and you will receive one in the spring of 1983, by which time we should have more plants available.

Send orders to *Magnolia Biondii* Distribution, c/o Dana Greenhouses, Arnold Arboretum, Jamaica Plain, Mass. 02130.