

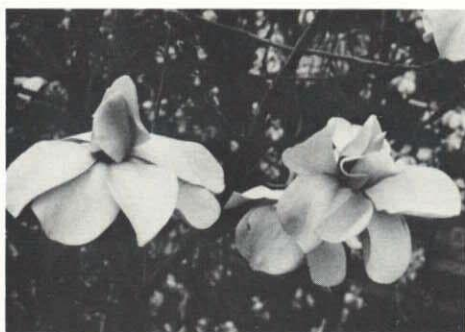
branch cuttings from magnolias in the nursery, to temperatures of 0C to 4C for 8 hours in a controlled temperature incubator. Mosaic symptoms similar to the field symptoms were induced on a few expanded leaves of *M. acuminata* × 273 (× *brooklynensis*), *M. brooklynensis* 'Evamaria,' *M.* 'Yellow Bird' × 273 (× *brooklynensis*), and *M. sieboldii* after exposure to -2C to -4C. The mosaic symptoms consisted of patches of green and light green to slightly chlorotic tissue. The chlorotic patches often changed to a water-soaked, then brown discoloration soon after removal of the plant material from the incubator. The mosaic was sometimes more concentrated along the mid-vein, or at the base of the blade. Some injured leaves turned brown, except for scattered patches of green tissue bounded by veins.

We have concluded that some magnolias, possibly predisposed by a period of warm temperature and accelerated growth, were injured by only one or two frost incidents in early May, with temperatures falling only slightly below freezing. The foliar injury expressed itself by the typical scorch symptoms, and by the perhaps less familiar mosaic patterns. This conclusion is based on the circumstantial evidence of mosaic symptoms following recorded freezing incidents, the inducement of similar mosaic symptoms after cold treatments, and by the apparent absence of virus infection. We report these observations in case others have noted similar mosaic symptoms after spring frosts and feared that their magnolias were infected with a virus, or some other infectious agent.

'Mossman's Giant'

Magnolia 'Mossman's Giant' is a plant of uncertain parentage acquired by Frank D. Mossman of Vancouver, Washington, as a four-foot whip from the Iufer Nursery, Salem, Oregon, around 22 years ago.

Frank figures the tree is about 25



years old. It's 25 to 30 feet tall and its trunk is 14 to 16 inches in diameter. Its flowers are 14½ inches wide and "very numerous." They have been appearing regularly for around a dozen years. The color inside the tepals is a creamy white and outside a pale red violet, presenting a slight purplish appearance.

Frank reports that its wood grafts readily on *M. sprengeri* 'Diva,' and that he hasn't tried rooting cuttings from it. *M.* 'Mossman's Giant' has produced seeds only in the past ten years. An adjacent specimen of *M. sargentiana robusta* has never borne seeds.

One propagated plant from it is in the garden of a friend of Frank's and has now reached a height of 20 feet without blooming, although it's in dense shade.

M. 'Mossman's Giant' withstood a temperature of -12°F. in 1972 and withstood winds of 35 miles per hour for a week without damage of any kind to wood and growth buds.

The flower form is the cup and saucer of *M. campbellii* and *M. campbellii mollicomata*, but its texture and size suggests *M. sargentiana robusta* parentage, Frank reports. The flower holds its cup and saucer stance for a few days, then begins to flop because of the size and weight.

Frank is now in the process of registering this arresting plant, which first came to the attention of some members of the Society through several breathtaking photographs of it, included in the Round Robin No. 2 circuit, to which Frank belongs.