

enclose each flower in a cloth or plastic mesh of some kind to protect developing seed from birds and squirrels. Old pieces of nylon stockings or the finer mesh grape bags work nicely. Don't use solid bags; the heat will destroy your flower.

The atmosphere, humidity, sanitation and so forth inside a tied-shut bud seems, not surprisingly, ideal for pollen germination, and my own success percentage is ten times as high as when I used paper, plastic, or any other kind of covering. With no covering at all, you may get seed, but you will have no way of knowing who the father was. I suspect that pollen of the same species as the female parent, even if it arrives on the stigma somewhat later than foreign pollen, probably germinates faster, and can beat the interlopers down the stylar canal to the ovary.

After you have tied the marriage knot, write up a marriage license on a tag, and tie it securely

to the twig just under the bud. If you run out of tags, don't make another move until you go back to the house and get more. Don't trust to your memory. You have no idea of the amnesia that will descend on you as soon as you walk away from an untagged flower. It is sure to produce seed, which will baffle you forever. "Putative hybrid" is a scientific sounding name, but no more use to a serious plant breeder than a handsome mongrel dog to a show kennel.

Newsletter Vol. IX No. 4, October 1973, has an article that takes up where this one leaves off, and copies may still be available from the secretary.

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Note on *Magnolia Biondii*

by J. C. McDaniel

Dr. Y. C. Ting returned to Boston from his 1977 summer trip to the Peoples Republic of China with some fruit material that Dr. S. K. Wu and colleagues had collected from *Magnolia biondii* at Luan-Chuan, Sung Hsien, in Honan Province, in early September. Half of the seed was turned over to the propagators at the Arnold Arboretum, along with about 10 cuttings of *M. quinquepeta* cultivated at Canton.

The seed material, judging from the half I received, was in good condition, but defective in development. When cleaned for stratification most of it floated. There were 21 "sinkers," which have been taken from the refrigerator and planted in my greenhouse in March 1978. Poor filling of magnolia seed is not confined to China. We see the same thing with many trees of different species in the United States, particularly where mineral nutrition is marginal.

Harry Heineman, one of the many AMS

members who are anxious to try *M. biondii*, has been checking on the progress at the Arnold Arboretum. On March 3 he wrote that he had talked with Jack Alexander, head propagator at Arnold, who told him none of the (*M. quinquepeta*) cuttings took and that he isn't getting good germination on the *M. biondii* seed either.

If we can culture any seedlings at all from the wild-collected *M. biondii*, I plan to graft from them and take cuttings for increase so that all AMS members who contributed to the Ting trips may get to try this rare species.

M. biondii is a rare species, but its horticultural value is yet to be tested in comparison with its relatives in Section Buergeriana, which are already established in the western world. They include, from Japan, *M. kobus* and all its variants (*loebneri*, *stellata*) and *M. salicifolia*, and the Chinese *M. cylindrica*.