I. crenata, reportedly possess 40 somatic chromosomes. Thus, it is unlikely that I. pedunculosa would be cross-compatible with any of these other species.

Peter Vermuelen: Have you tried Ilex rugosa?

ELWIN ORTON: Yes, I have that crossed with *I*. x aquipernyi and have crossed it with plants that are hybrids of *I*. connuta and *I*. aquifolium and several others. Most of the plants are not very vigorous however.

Moderator Pinney: We thank you again, Dr. Orton. At this time I'd like to introduce Mr. Al Fordham of Arnold Arboretum who will take over the next segment of the program on new plant introductions.

AL FORDHAM: As Tom mentioned, we now come to that part of the program that deals with new plant introductions. I would like to remind you of the regulations dealing with the showing of new plant introductions; that is, each exhibitor shall be prepared to furnish propagating material at the proper time for each plant material to any member who makes a request. Commercial members will be allowed to sell plants to any interested member. At the end of the session there will be a few slides which Dr. Mehlquist and Mr. James Wells will show which are just for the opinions of the members with respect to identification, possibilities, etc. Our first exhibitor will be Mr. Joe McDaniel of the University of Illinois.

'GRIFFIN' EVERGREEN MAGNOLIA

J. C. McDaniel and Sara D. Groves'

Department of Horticulture

University of Illinois

Urbana-Champaign, Illinois

Seedlings grown as Magnolia grandiflora are a variable complex. In the opinion of the first author, this variation is, so far as horticulturally superior forms are concerned, in large part associated with long-continued introgression of M. grandiflora by M. virginiana australis in areas of the southern U. S. coastal plains where their ranges overlap. A high proportion of the new and old select cultivars of M. grandiflora, including the 'Exmouth' which has been propagated for 230 years, have characteristics, particularly in their foliage, resembling those of indisputable hybrids such as 'Freeman' and others bred since 1930.

The distinctive clone now offered as 'Griffin' is believed to be the result of chance hybridization. It is probably a later-generation hybrid, which appears to be fully fertile, unlike the known F_1 hybrids between diploid M. virginiana and hexaploid M. grandiflora, which are often highly sterile.

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The original 'Griffin' plant, in a city park at Griffin, Georgia, is a multistemmed, compact, spreading tree, with leathery leaves having a glossy upper surface and brown indumentum, smaller and more acute at both apex and base than is usual for *M. grandiflora*. Its fragrant white flowers, freely produced over a long season, are large, and usually 12-petalled, borne on long peduncles which place them above the foliage. The red-coloring fruits, also well-displayed, are of smaller diameter and smoother than average for *M. grandiflora*. The abundant seeds have given somewhat variable seedlings with mostly better than usual *M. grandiflora* foliage. McDaniel finds its pollen compatible in a cross on deciduous *M. virginiana*.

Both authors had strong rooting (100% for Mrs. Groves) with IBA-treated 'Griffin' cuttings stuck in the greenhouse in early December. Mrs. Groves is a commercial propagator and has agreed to supply other propagators with cutting material. Its hardiness northward remains to be tested, but we can recommend 'Griffin' both as a superior evergreen and flowering cultivar for the areas where *M. grandiflora* now is generally grown, and as a select seed source.

NEW ORNAMENTAL TREE CULTIVARS OFFERED FROM ILLINOIS TO PROPAGATORS, 1969-70

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Can you help us test some meritorious new ornamentals? We are planning to distribute to selected nursery propagators and some arboretums in early 1970, a few scions from two new hybrid magnolia cultivars originated here, and a self-fertile clone of *M. acuminata*, plus some other small flowering trees recently named, registered, and test propagated. I should like to hear from you soon if you are interested in initiating propagation of any one or more of the following items, none of which is patented.

1. Magnolia 'Ballerina' is a Loebner magnolia, seedling of M. x loebneri 'Spring Snow', possibly crossed with M. stellata 'Waterlily'. Of similar season to the well-known Loebner magnolia 'Merrill', this has considerably more double flowers (to 30+ petals), is slightly pink-blushed and more highly fragrant. Judged by its first twelve years growth, it apparently will mature as a smaller tree than 'Merrill', but larger than M. stellata. The 1969 tests showed a high percentage of strong rooting with May to July leafy cuttings stuck under mist after IBA dip. For grafting as cutting-source trees, I suggest either M. soulangiana or M. acuminata understocks, rather than M. kobus, whose foliage may be confusingly similar and could lead