

of a witches' brew made up for him by a friend, got 50%. The failure to root is just one of many unseen defects that plague the rhododendron breeder.

In recent years there has been at least a small market for truly dwarf rhododendrons, the small leaved kinds that used to be called dooryard or rock garden rhododendrons. These are generally not over 2 ft tall. 'Ramapo', Guy Nearing's hybrid, is the best I know of these, and I see it in nurserymen's lists fairly frequently. A newer hybrid from Nearing is 'Mary Fleming'. It's a blend of yellow and pink, and I've never met anyone who didn't like it. Zone 6a is the limit of its bud hardiness. Ted Van Veen imported 'Pink Drift' from Holland, and it turned out to be much hardier than I expected, but it's a very satisfactory rhododendron in Zone 6a. One of my contributions which I called 'Tow Head' is of about equal hardiness. It lost its buds last spring, for the first time after a winter that converted Zone 6a to about 4b. At times, the chill factor was -70°F .

Finally, how does a hybridizer's workshop differ from a commercial nursery? For one thing, considerable space has to be found for the selections made each year. They have to be moved into an area where they can be watched individually for a few years. I have a woodland, where I plant out the preliminary selections for observation. At an early age, a good many will show foliage or other defects, or limited bud hardiness, so they are dug out and discarded. Plants must prove that they are worth the space they occupy or they are destroyed. Hybrid seedlings, transplanted from flats, are grown for 2 years in ground beds; they're protected the first year, and then they're on their own. From the ground beds they go into the field, under a mulch of wood chips. They're watched for signs of being superior or distinctively different from anything in commerce. That is the first basis of selection. They must be better, and they must be different than anything now available. I must have grown about 250,000 seedlings since I first began breeding. The worthless are destroyed and others take their place. A breeder always has in his mind's eye the most sensational rhododendron ever produced, preferably one with red, white and blue flowers which will shoot off skyrocketes and play the Star Spangled Banner on the 4th of July.

Thursday Afternoon, December 8, 1977

Dr. Harrison Flint served as moderator for the New Plant Forum.

MODERATOR FLINT: Our first speaker on this portion of the program will be Ray Evison from the GB&I Region.

RAY EVISON: *Clematis* 'Niobe' is a new large flowered cultivar raised in Poland. It has bright red sepals with yellow anthers. This free flowering cultivar produces its first flowers from the old wood during late May/June and continues to produce flowers on the new growth until the beginning of October.

MODERATOR FLINT: Tom Pinney has two birches he would like to tell us about.

TOM PINNEY: Two new birches which have apparent resistance to bronze birch borer are *Betula platyphylla* var. *japonica*, Japanese white birch and *Betula platyphylla* var. *szechuanica*, Szechuan white birch. The Japanese white birch has flat, light green shiny foliage. It has a medium growth rate with fine twigs which give it a somewhat drooping habit. It has a white bark but the bark is not exfoliating. This birch does not tolerate wet areas very well.

The Szechuan white birch has leaves which are deep green and are more leathery than the Japanese white birch. The leaves are wavy as opposed to flat. It is a vigorous grower which tolerates wet areas very well. The twigs are heavier than the Japanese white birch which gives the plant a more upright habit.

Both of these birches have good apparent resistance to bronze birch borer, excellent white bark and a wide range of adaptability. Dr. Whitcomb has reported that they do well in Oklahoma and they have survived -25°F winters in Wisconsin. Dr. Santamour of the U.S. National Arboretum has confirmed that our seed of *B. platyphylla* var. *japonica* is from "true to name" plants. We are reasonably certain *B. platyphylla* var. *szechuanica* is also true to name.

MODERATOR FLINT: Ralph Shugert has five plants which he would like to tell you about.

RALPH SHUGERT: *Fontanesia fortunei* is an excellent hedge plant which requires no trimming: good foliage, willow-like, to the ground, very drought resistant and grows in sun or half shade. Ultimate height is 15 ft. Borderline hardy in Zone 4, but took -17°F in Southern Ohio, January, 1977. Hardy and adaptable to the Central Rocky Mountain Region. Tends to be open as a mature shrub so it is important to pick seed from well-shaped parent plants. Best landscape use is anticipated as a trimmed hedge with minimum of one shearing annually.

Rhamnus caroliniana, Carolina buckthorn is also known as Indian cherry. Large shrub or small tree, to 30 ft, with outstanding glossy-green foliage holding well into November. Bright red fruits turning black when ripe. Native of America as far north as Southern Ohio. Foliage holds later in the fall than any *Rhamnus* we have tested.

Pyrus fauriei, Korean pear, is more dwarf, to 30 ft, than any *Pyrus calleryana* selections. Foliage is glossy green, with good fall color, fruit is russet color, twice the size of 'Bradford' pear. Profuse white blossoms cover this variety in early spring. The variety is completely thornless. Our trees are progeny from a specimen at Morton Arboretum.

Lindera angustifolia, an Asian spicebush, is not listed in Rehder's Manual, but was recently identified for us by Arnold Arboretum. Outstanding hedging shrub. Foliage persists over winter with lovely pastel shades of pink and orange in fall. Side branching to ground level. Propagation from seed, or softwood cuttings taken very early. Progeny from our plants are now at the Arnold Arboretum.

Betula maximowicziana, monarch birch, is the largest-leaved of all the birches. Leaves are heart-shaped, up to 6 inches long. Bark color is orange-brown, finally turning greyish-white. The trees shown in the slides are hybrids — *B. maximowicziana* pollinated with an unknown *Betula* species. Resistant to bronze birch borer. Hybrid trees allow the white-bark of one parent, and the bronze birch borer resistance of the other parent.

MODERATOR FLINT: Our next speaker wishes to tell us about some nursery plant introductions from Canada.

NURSERY PLANT INTRODUCTIONS FROM MANITOBA

WILBERT G. RONALD

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The Agriculture Canada, Research Station, Morden, Manitoba, is located in Zone 3b of the U.S.D.A. and the Canadian Plant Hardiness Zone maps. To place us geographically, we are located approximately 450 miles northwest of the Minneapolis-St. Paul area, or 70 miles southwest of Winnipeg. Plants introduced by the Morden Station are most useful for the northern great plains and prairie region and colder regions of northeastern U.S.A. and eastern Canada. The following introductions are available for propagation through the Canadian Ornamental Plant Foundation, P.O. Box 725, Durham, Ontario, NOG, 1R0. Propagators who belong to this organization and pay a small royalty may propagate any COPF introduction.

'Jacan' elm is a 1977 introduction of Japanese elm (*Ulmus japonica* (Rehd.) Sarg.) which holds promise as a replacement for American elm. This new cultivar has a vase-shaped growth form, strong branches and demonstrated tolerance to inoculum