

Friday Morning, December 11, 1981

NEW PLANT FORUM

JACK ALEXANDER and PETER DEL TREDICI

MODERATOR DEL TREDICI. Our first speaker today is Jack Alexander.

JACK ALEXANDER. *Syringa pekinensis*, a native of China, is a small tree seldom reaching 25 feet. The most attractive specimens have exfoliating, cinnamon brown bark that peels off in strips. This characteristic varies greatly between specimens and the plant may display a cherry like bark similar to the Japanese tree lilac, *S. reticulata*.

To be assured of exfoliating bark we should propagate only from specimens exhibiting this characteristic. Cuttings are difficult-to-root and grafting or budding may be necessary for asexual propagation. Seed from attractive plants may yield satisfactory results and have the added benefit of variation, from which we might select superior clones.

The flowers of the Chinese tree lilac appear at about the same time as the Japanese tree lilac and are also creamy white. The leaves of *S. pekinensis* are smoother, less oval shaped than *S. reticulata* and more closely resemble the leaves of the common lilac. They are only slightly effected by mildew.

*S. pekinensis* is very cold hardy. What is probably the oldest specimen on this continent has been growing at the Ottawa Research Station in Canada since 1902.

MODERATOR DEL TREDICI: Wayne Mezitt has three plants to show.

WAYNE MEZITT. *Pinus rigida* 'Sherman Eddy', discovered in the Pocono mountains in the 1930's by Sherman Eddy. It is very slow growing, 4 to 6 inches a year, and late breaking. Large whorls of bright green needles surround the bud and produce a dense, tufted appearance. The plant is grown exclusively from grafts.

*Pinus strobus* 'White Mountain', has brilliant silver-blue needles but is similar in all other respects to the species. It may be slightly less winter hardy or less tolerant to air pollution. We have experienced winter needle discoloration twice in the ten years. Discovered in a lot of understock purchased from Western Maine Forest Nurseries in the early 1970's.

*Tsuga canadensis* 'Westonigra' has exceptionally dark green foliage which is especially noticeable in winter. It grows as fast or faster than Canadian hemlock but not as fast or rank as the parent plant. The original 'Westonigra' was discovered

in a field at Gillette Nurseries in Southwick, MA in the early 1940's and grown by cuttings and grafts for many years. It is too loose-growing to be of great value as a landscape plant, but seedlings from isolated plants are 75 to 95% dark-foliaged and more uniformly "normal" growing.

MODERATOR DEL TREDICI. The next speaker is Don Shadow

DON SHADOW: *Cotinus obovatus*, American smoketree, is a small tree or large, few-stemmed shrub, growing 20 to 25 feet and forming an upright-oval to rounded outline. The rich blue-green leaves turn to brilliant yellow-orange-red in fall. Intensity of fall color varies among individuals and superior clones should be selected. Flowers and fruits are not quite as showy as *C. coggygria*. Bark on older trunks develops a unique fish-scale appearance. Seeds will germinate if fall planted and softwood cuttings can be rooted.

*Pseudocarya sinensis*, Chinese quince, is a lovely small tree or large shrub with a distinct upright oval habit 15-25 feet. The leathery dark green leaves change to yellow-red-orange and purple in the fall. The whitish pink flowers are followed by very large oblong yellowish fruit. These fruits are highly aromatic. The most beautiful characteristic is the bark which is fluted and mottled much like *Ulmus parviflora*. The bark forms a patchwork of gray, green, brown and orange.

Seeds will germinate quite well when planted immediately upon extraction from the fruit. They must not be allowed to dry before planting. Grafting and budding of select forms may be used.

MODERATOR DEL TREDICI. Sidney Waxman from the University of Connecticut has some plants to show.

SIDNEY WAXMAN: *Tsuga canadensis* 'Florence' is low, mound-shaped with a fine texture. It was selected from a population of several hundred seedlings taken from a witches' broom. The plant grows at the rate of 2 to 3 inches per year and can be propagated by cuttings.

*Pinus strobus* 'Blue Shag' was selected from a population of 700 seedlings taken from a witches' broom. It has very dense branching and long blue-green needles. Its dimensions after 8 years growth, are 3 feet high and 5½ feet wide. Its current growth rate is approximately 5 inches per year.

*Pinus strobus* 'Green Shadow' was found in a Torrington, Connecticut woodland. It's a rounded, dense shrub with long dark-green needles. With time this selection develops into a rounded tree with ten or more trunks arising from its base. This tree is unusual not only because of its color and growth



habit, but because its grafts appear to be incompatible. Its cuttings root relatively easily.

*Pinus resinosa* 'Sand Castle' is a dwarf and dense upright shrub with tufts of short deep-green needles. It originated as a graft from a red pine witches' broom. Its growth rate is very slow for a red pine (3½ to 4 inches per year), and its dimensions after 10 years are 4 feet in height and 4½ feet across.

*Pinus resinosa* 'Thunderhead' is a broad vigorous shrub with long dark-green needles arranged in tufts. It was selected from a population of 70 seedlings collected from a witches' broom seedling in Wolfboro, New Hampshire. After 10 years of growth, it is 3½ feet tall and 5 feet wide.

*Pinus strobus* 'UConn' was introduced at the meeting 2 years ago. Unfortunately the printer misspelled the name which should have read, UConn, an abbreviation of The University of Connecticut. Also, the unnamed weeping larch I previously introduced is now named, 'Varied Directions', and the umbrella pine also unnamed at that time has been given the name, 'Wintergreen'.

MODERATOR ALEXANDER. The next speaker is Peter Del Tredici.

PETER DEL TREDICI: *Chionanthus retusus* is a relative of our native fringetree, *C. virginicus*. This is not a new plant insofar as it has been cultivated since the late 1800's, but it is a good plant, and should be much more widely grown than it is.

The plant is reliably hardy to Zone 6 and grows well in Boston, Massachusetts. It is an excellent small tree, although it starts out more like a shrub than a tree. The plant is relatively pest free, with unblemished foliage that it keeps well into October. The species is usually considered dioecious, with separate male and female plants. This dioeciousness may not be absolute, however, since some individuals, such as Arnold Arboretum #13051, bear bisexual flowers and are capable to setting viable seeds without cross pollination. In winter, the tree is striking for its neat, compact form and its beautifully fissured bark. Culturally speaking, the plant is slow growing and does best in full sun in a moist, sandy loam.

Now you might ask, if a tree is as good as this and has been around for a long time, why isn't it more common? The reason is that there are propagation difficulties with the tree. Cuttings can be rooted, but not without some difficulty and inconsistency from year to year, and the seeds supposedly take 2 years to complete germination. In addition the plants are difficult to transplant. But today at least one of these problems should be eliminated since the seed we have for distribution

(from A A #13051) have already put their radicles down and only require an additional chilling period of 3 months in order to complete germination. The problem of transplant difficulty can be solved by growing the plants in containers. It is interesting to note that the seeds we have for distribution put their radicles down less than a month after being collected. This is remarkable given that the standard recommendation calls for 5 months of warm stratification. To further complicate matters, ripe seeds that were collected two weeks earlier (on September 17) and treated in exactly the same way have failed to put down their radicles after 2 months. Clearly, the timing of the seed collection plays an important role in obtaining successful germination.

In conclusion, I should note that when grown from seed, *C. retusus* is rather variable in its shape and growth rate. Be that as it may, you nursery people no longer have any good reason for not growing this plant.

MODERATOR ALEXANDER Ruth Kvaalen has a plant she would like to present.

RUTH KVAALLEN. *Microbiota decussata* was discovered in southeast Siberia in 1921 and described in botanical literature in 1923. Nevertheless, it is seldom mentioned in plant manuals even today. *Hortus Third* does not list it, nor does *Bean's Trees and Shrubs Hardy in The British Isles*. It is not mentioned in *Harrison's Ornamental Conifers*, but Welch does include it in his *Manual of Dwarf Conifers* published in 1979.

This plant has confused taxonomists. The second edition of Rehder's *Manual of Cultivated Trees and Shrubs* (1940) said that it is probably only a variant of *Thuja orientalis* which retains its juvenile foliage up to the fruiting stage. Den Ouden and Boom's *Manual of Cultivated Conifers* stated that it is closely related to junipers, and that one taxonomist considered it an abnormal juniper. Today, however, it is considered a separate genus with this single known species.

*M. decussata* was discovered in the Olga River valley east of Vladivostock and on mountains near Vladivostock at high elevations above the timber line. In 1949, two seedlings collected from the wild were obtained by the Botanical Garden in Taschkent, USSR. From there it was distributed to Czechoslovakia, and from there to Germany. Cuttings from these plants were received at the Trompenburg Arboretum in Rotterdam, Holland, in 1968. Two plants are growing there. Since then, cuttings from these plants have been fairly widely distributed.

J.R.P. Van Hoey-Smith of the Trompenburg Arboretum described this species as an ideal ground cover. The growth habit is low and spreading. In 1978, the 10-year old plant in



the Trompenburg Arboretum was 12 feet across but only 8 inches high. The species is said to grow well in both full sun and half shade, a fact that gives it an advantage over juniper species. In winter, *Microbiota* changes from green to a color described variously as dull brown, copper brown, or like that of *Juniperus horizontalis* 'Plumosa' in winter.

As might be expected from its origin, it is very hardy, probably at least to USDA hardiness Zone 3 and maybe to Zone 2.

In the wild, propagation is from seeds or layering. Cuttings root readily. The species was initially described as dioecious, but one of the two plants in Rotterdam apparently bore viable seeds in 1978. Since both plants growing there were ramets of the same clone, it appears that there must be some exception to the dioecious condition, unless the species can be pollinated by other conifers such as *Juniperus* or *Thuja*, which the observer thought unlikely on the basis of cone morphology. I have not found information on seed germination requirements. Russian cypress has been suggested as a common name.

Plants are available from Isely Nursery, Boring, Oregon, and perhaps elsewhere. The Arnold Arboretum has it, as does the Minnesota Landscape Arboretum.

MODERATOR ALEXANDER: Rob DeFeo from the U.S. National Arboretum, Washington, D.C., has four plants to discuss.

ROB DeFEO. *Hibiscus syriacus* 'Helene', NA 41786, PI 445779, is a selection from (*H. syriacus* 'Sokobien-yae' × *H. syriacus* 'William R. Smith') × *H. syriacus* tetraploid seedling. The multiple-stemmed, erect-growing, densely branched shrub in 9 years has grown 2.5 m high and 2 m wide. The glabrous, firm-textured, dark green (Green 137A above and Green 137C beneath) leaves are 7-10 cm long, 4-7 cm wide, triangular or rhombic-ovate, mostly 3-lobed, and variously toothed and notched on the margins. The waxy, companulate, 10-15 cm diameter flowers are undulate to heavily ruffled, with 3-20 twisted lanceolate petaloids. The white flowers have a trace of pink (Red Purple 70C) on the reverse and a prominent dark red (Red Purple 60A) eye spot that radiates along the veins to mid-petal. The seed capsules, when formed, contain mostly aborted ovules. Being a triploid plant, seed production is none or very sparse with the result that the plant continues to initiate flower buds from early summer to autumn.

This new cultivar was selected by Dr. Donald R. Egolf and

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Color designations are according to the Royal Horticulture Society Colour Chart, 1966.

results from a breeding program with the objective to combine polyploid sterility with superior ornamental characteristics. 'Helene' can be readily propagated by softwood cuttings that frequently will flower the first season, but it is not until the second or third year that plants produce heavy flowering. It will grow on a wide range of soils but will do best in a sandy loam with a pH of 5.5-7.0. The flowering will be heavier and the plant much more compact if grown in full sun. It is reliably hardy to USDA Zone 5b.\*\*

*Laegerstroemia* 'Muskogee' and *L.* 'Natchez'. 'Muskogee', NA 38448, PI 427114, is a hybrid selection from the cross *L. indica* 'Pink Lace' × *L. fauriei*. The multiple-stemmed, large shrub or small tree in 12 years has grown to a height of 7 m and a breadth of 3.5 m. The exfoliating bark of the vigorous, upright trunks is medium brown (Greyed-Orange 164B-165D). The heavy, glossy, dark green leaves, which are 5-9 cm long and 2.5-4.5 cm wide, turn good reds and yellows in the fall. The abundant inflorescences of light lavender (Violet 84C) flowers are 10-18 cm long and 10-12 cm wide. 'Muskogee' produces a landscape-sized plant in 3 years suitable for specimen or avenue plantings.

'Natchez', NA 38449, PI 427115, is a hybrid selection from the cross *L. indica* × *L. fauriei*. The multiple-stemmed, large shrub or small tree in 12 years has grown to a height of 7 m and a breadth of 3.5 m. The most outstanding characteristic of the plant is the dark cinnamon brown (Greyed-Orange 166B-174D) exfoliating trunk bark that remains spectacular throughout the year. The glossy, dark green leaves, which are 3.4-8 cm long and 2-4 cm wide, assume good autumn oranges and reds. The pure white flowers are borne in inflorescences 14-30 cm long and 10-15 cm wide throughout the summer. 'Natchez' produces a select flowering specimen within several years, but the distinctive trunk bark coloration is not spectacular until about the fifth year.

These hybrids were selected by Dr. Donald R. Egolf and result from a breeding program with the objective of combining mildew resistance with superior ornamental characteristics. These are the first hybrids to be produced by controlled interspecific hybridization with *L. fauriei* and *L. indica* and are unique with resistance to mildew incited by *Erysiphe lagerstroemia*. They can be readily propagated from softwood cuttings. They will grow well in many soils but will do best in a sandy loam with a pH of 6.0-7.0. These plants are reliably hardy to USDA Zone 7b.

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\*\* Hardiness ratings are based on the USDA Plant Hardiness Zone Map, USDA Misc Publication 814



*Magnolia* 'Galaxy', NA 28352-14, PI 433306 was selected from an F<sub>1</sub> hybrid population from the cross *M. liliflora* × *M. sprengeri* 'Diva'. It is a single trunked tree with an excellent branching habit. In 14 years the original tree has grown to a height of 8 m with a trunk diameter of nearly 18 cm. There are 11-12 tepals pigmented on the outer surface at the base ruby-red (Red Purple 64A) shading to magenta-rose (Red Purple 64C) toward the tip. The inner surface of the tepal is a paler red (Red Purple 65C). The flowering period is about two weeks later than the early parent 'Diva', thus allowing flowers to escape most early frosts.

This new cultivar was selected by Dr. Frank S. Santamour Jr. and results from a breeding program with the objective of developing cultivars with superior characteristics. The adaptability, tree form, late flowering, and flower color of this cultivar are significant improvements of existing cultivars of *Magnolia*. 'Galaxy' is adaptable to a wide range of soil conditions, including sod culture, and can be readily propagated from softwood cuttings. It is reliably hardy to USDA Zone 5.

*Viburnum* 'Chesapeake', NA 43149, PI 445781, is a hybrid selection from the cross *V. carlcephalum* 'Cayuga' × *V. utile*. The deciduous compact shrub in 16 years has grown 2 m high and 3.3 m wide. The densely stellate, light green (Yellow Green 147B) young branches become glabrate, wide spreading and grey-brown. The glossy, dark green (Yellow Green 147A above and Yellow Green 148C beneath), obovate elliptic leaves are 5-7 cm long and 3-4 cm wide. In autumn the leaves assume red to orange (Greyed Red 179A to Greyed Orange 173D) coloration. During early May the profusion of 5-8 cm diameter cymes have pink buds that open to white flowers. The fruit ripens in August to a dull red before becoming black.

This new cultivar was selected by Dr. Donald R. Egolf and results from a breeding program with the objective of developing cultivars with superior ornamental characteristics. 'Chesapeake' is suitable for use in the landscape as a specimen, a hedge, or a mass planting. This cultivar will grow well in many soils but will do best in heavy loam with a pH of 6.0-6.5 and can be readily propagated from softwood cuttings. It is reliably hardy to USDA Zone 5b.

The planting stock increased by cooperating wholesale propagation nurseries will be the source of plants for introduction. A distribution from the U.S. National Arboretum to arboreta and botanic gardens will follow. The U.S. National Arboretum does not have stock of this cultivar available for general distribution.

MODERATOR DEL TREDICI: Jack Alexander will next present a plant with description by Gary Koller.

GARY KOLLER. *Kalopanax pictus*, castor aralia, is most significant because of a cold hardiness tolerance to  $-30^{\circ}\text{F}$  (Burlington, Vermont), and perhaps lower if more widely tested. This cold tolerance is a primary attribute for it would make *Kalopanax* a useful addition to northern landscape markets where the selection of trees is drastically restricted due to winter temperatures. Another important consideration is that this tree tolerates lower, flood plain type soils and situations. Many of the best trees for street tree and urban landscapes possess this attribute. It also adapts to higher drier soils and a wide pH range

Ornamental features are limited to large terminal clusters of small greenish-white to creamy-white flowers in August. Followed by tiny blue-black fruits in late September and October. The ripened fruits attract several types of birds which quickly devour them. At the Arnold Arboretum autumn foliage is yellow-brown to amber-yellow but at best is relatively non descript.

One characteristic which can be viewed as an asset or a disadvantage are short, pointy spines along the trunk, stems and branches. As a disadvantage they make transplanting and pruning care more difficult. However, when used as a street or park tree these spines may discourage vandalism to the stem as well as tree breakage. On mature bark the spines are reduced or absent and the bark is dark brown and deeply furrowed and could be compared to the bark of *Robinia pseudoacacia*, the black locust. Winter form of *Kalopanax* is a bit irregular and coarse with an open branching pattern.

If you live in or market your plants in the northern portion of the United States or southern Canada this is a tree you should evaluate.