the legitimate name for that cultivar only.

It must be emphasized that registration is a published and documented record of the name only and does not apply to the actual plant or clone being named. Acceptance of a cultivar name for registration does not imply judgment on the distinctiveness or merit of the cultivar.

To conclude, at any time when you are introducing a new cultivar, you should take these two steps:

- Register the cultivar name with the pertinent Registration Authority;
- 2) Contact the Landscape and Turf Working Group of the ASHS, fill out their form and return it. If you do not know who your State Coordinator is, contact Dr. Gerald Klingman, Department of Horticulture and Forestry, University of Arkansas, Fayetteville, Arkansas 72701, for information and data forms.

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## **NEW PLANT FORUM**

## JACK ALEXANDER and GARY KOLLER, MODERATORS

JOERG LEISS: Dianthus 'Frosty Flame' starts to flower in May and continues to flower until frost. The color is an attractive deep red. The originator is Tony Huber of W. Perron and Cie, Montreal. It is easily propagated by softwood cuttings during the summer months under intermittent mist or under plastic.

Taxus cuspidata 'Aurescens' is a plant that has been in commerce for quite a while. It is sometimes falsely called T. baccata 'Aurea'. The foliage is banded in shade and bright yellow in full sun. There is a plant at the Arnold Arboretum. It propagates easily as does most Taxus, but grows best under light shade.

RICHARD LIGHTY: Lindera angustifolia has been in North America for at least 30 years, although it originally was circulated, probably by

Henry Kohankie, under the name L. umbellata var. hypoglauca. My plants were grown from seed given me by John Fogg, then director of the Barnes Foundation.

Lindera angustifolia is monoecious, unlike a number of other species in the genus and produces abundant, round, glossy black fruit in groups of 1-3 on a twiggy shrub to 8 meters. It is a useful plant in natural or informal landscapes at any season but can be one of the most spectacular plants in the landscape when it colors red in autumn. It does this with regularity in New England, and sporadically in the Delaware River Valley. The conditions under which this happens are not clear. In all areas the leaves turn uniformly tan as winter approaches, and persist into the new year.

This plant may be propagated by seeds by giving them a 2 to 3 month cold period followed by a warm period.

SUSAN BENTZ: The Japanese iris cultivars that I will present are from the breeding program of W.L. Ackerman at the U.S. National Arboretum. These cultivars resulted from a breeding program utilizing Iris kaempferi germplasm imported from Japan through the U.S. Department of Agriculture, Agricultural Research Service, Plant Introduction System. Goals of these genetic investigations included: the development of new floral forms and colors, extension of flowering season, increased floral longevity, and development of dwarf forms.

'Wine Ruffles' — Double, 30 in. tall, velvety purple falls with ruffled margins, bright yellow signal, vigorous.

'Grape Fizz' — Double, 33 in. tall, ruffled purple-violet falls with sharp white mosaic.

'Lavendar Krinkle' — Double, 30 in. tall, broad violet ruffled falls, white around signal.

'Sky and Mist' — Double plus, 24 in. tall, loose peony form, white falls with violet-blue veins, late blooming.

'Royal Fireworks' — Double, 40 in. tall, velvety ruffled violet, very early and vigorous. Repetitive flowering noted.

'Enduring Pink Frost' — Single, 22 in. tall, bicolor, white falls with lavendar-pink standards, long lasting flowers.

'Lasting Pleasure' — Double, 30 in. tall, purple-violet falls with white margins and light interveinal areas, long lasting flowers.

Japanese iris may be grown successfully in most parts of the U.S. Blooming after the tall bearded iris, they extend the season into the summer months. They do best in an acid soil (pH 5.5), rich in organic matter, and plentiful moisture during spring and through the flowering season.

Propagation is mostly by division.

GARY KOLLER: The following weigela cultivars were supplied by F. Svejda, ornamental plant breeder, Agriculture Canada, Research Branch, Ontario Region, Ottawa Research Station, Building 50, Ottawa, Ontario, Canada D1A 0C6.

Weigela 'Samba' was registered with the Canadian Ornamental Plant Foundation in 1985 by the Ottawa Research Station.

'Samba' is very hardy, freely flowering and is an attractive, medium high shrub with grey-purple foliage. Hardy flowering shrubs with purple foliage are rare. It resulted from a cross between Weigela 'Rumba' × W. florida 'Eva Rathke'. 'Samba' is a vigorous and well-branched shrub which reaches a height and spread of 0.8 to 1 m in Ottawa. The flowers are red (R.H.S. Color Chart (70A-B) with a yellow throat, 2.5 cm across, and a corolla tube 4 to 4.5 cm long. The leaves are abundant, healthy with purple tips and edges (187 A) and dark green bases and centers (147 A), 6 to 7 cm

long, 2.5 to 3.5 cm wide, leathery. 'Samba' has been tested in Ottawa since 1978. It is as hardy and freely flowering as 'Rumba' but does not flower repeatedly. It does not suffer from diseases and is easily propagated from softwood cuttings.

Weigela 'Rumba' is a very hardy new cultivar that is both free flowering and repeated flowering. The flowers are dark red (R.H.S. Color Chart 61A-71B with a yellow throat (11A), 2.5 to 3 dm in diameter. The corolla tube is 4-4.5 cm long. Leaves are abundant, healthy, yellow-green (147A) with purple tinted edges (187A), 7 to 7.8 cm long, 3.5 cm wide, obovate, acuminate, with serrated edges. It flowers as freely as 'Minuet' during the first few weeks, but subsequent flower production declines resulting in a lower average than 'Minuet'.

'Rumba' does not suffer from diseases. It is propagated easily from softwood cuttings.

Weigela 'Minuet' combines the features of both winter hardiness and low stature. This shrub is bushy and well balanced. It reaches a height and diameter of 0.5 to 0.7 m in Ottawa. The foliage is green, with a purple tint, 147A and 187A (R.H.S. Color Chart), and abundant. The leaves are 5 cm long, 2.5 cm wide, with serrated edges. Flowers are slightly fragrant, 3.5 cm in diameter, corolla tube 4 cm long. Color is two-tone: corolla tube and outer corolla are ruby red to magenta rose, 64A-64B; inner petal lobes vary from lilac purple to magenta rose, 70B-70C; throat is yellow, 11A. Bud color is ruby red, 64A.

'Minuet' is easily propagated from softwood cuttings.

JACK ALEXANDER: Rhus chinensis is a deciduous shrub or small tree that may vary in height from 3 to 24 ft. It is native to the Himalayas, China, Korea, and Japan. Its leaves are pinnately compound, 8 to 15 in. in length, and have 7 to 13 leaflets. The leaf rachis may be winged, but there is considerable variation of this character.

In the Boston area, large terminal panicles of white flowers are produced in mid to late August. It is these attractive inflorescenses and the brilliant display of fall foliage color, so typical of many Rhus, that makes this species horticulturally attractive. The small, reddish-orange fruit ripens in October. Seed may be germinated by soaking in hot water prior to a three month cold stratification period. Selected clones are easily propagated by root cuttings.

According to the literature, this species is hardy to -10°F., but this is based on few individuals and much more testing needs to be done to establish more accurate limits. Because of its wide native range, we should expect greater cold hardiness from collections made in colder regions.

Called Chinese sumac or nutgall tree, for the galls sometimes formed on its foliage when grown in China, and since sumacs and galls are not usually wanted in gardens, it would perhaps benefit from a different common name.

I interviewed a Chinese horticulturist about this species, hoping that another Chinese common name might be more appealing, but the name he knew it by translates to "salt skin tree." This because of the salty flavor borne on the skin of the fruit. He related that in years past, people in remote areas would soak the fruit in water to dissolve the salt, would then remove the fruits and evaporate the water to recover the salt. Still lacking an attractive sounding name, I discussed possibilities with our horticultural staff and we would like to propose Chinese plume tree as a more desirable common name for sales promotion.

PETER DEL TREDICI: Akebia quinata, the fiveleaf akebia, is not

new, having been introduced into cultivation in 1845 by Robert Fortune, but is not readily available from nurseries in the northeast. It has developed something of a bad reputation because of the extremely rapid and rampant growth. As is often the case, this reputation is undeserved. There are many situations that call for a very rampant plant to hide a very ugly structure. The fiveleaf akebia can smother other plants when planted near them; however, when planted off by itself, it can be a valuable addition to the landscape. Akebia quinata is hardy to U.S.D.A. Zone 4 and, in my opinion, is one of the best plants there is for rapidly covering and hiding chain link fences in an urban area. The fiveleaf akebia is a twining vine that is very useful for covering the stumps of big dead trees, such as the American elm, and it can be used for rambling over stone walls. In short, this is a plant for difficult conditions — both urban and rural.

Akebia quinata has a fine-textured foliage which stays until late fall or early winter, when temperatures dip into the low twenties. The inconspicuous maroon flowers are produced in early spring. The fruit, which matures in September and October, is a very dramatic purple color and comes in bunches not unlike bananas in size and shape.

Few people would argue with the statement that A. quinata produces the most bizarre fruit of any plant hardy in Boston. Unfortunately for the gardener, the plant does not produce these fruits every year. Fortunately, this was a good fruiting year for the fiveleaf akebia at the Arnold Arboretum, so I have cleaned, bagged, and stratified the seed for distribution today. The seed is mildly dormant and requires only 1 or 2 months of stratification in order to germinate. The seeds here today can either be sown immediately in a warm greenhouse or they can be put back into the refrigerator for sowing in the spring.

One note of caution. Growing right next to our plant of A. quinata is its close relative, A. trifoliata, which is not quite so attractive with its somewhat coarser foliage. It is quite possible that I may have collected a few fruits from A. trifoliata since the two vines are totally intertwined. It is also possible that there may be some hybrids between the two plants among the seeds, given that such a hybrid (A. × pentaphylla) is known to exist. Akebia quinata can also be rooted readily from softwood cutting. At the Arnold Arboretum, 25 out of 28 cuttings rooted when taken on 21 June and treated with a commercial rooting powder (Hormo-Root B) and placed under mist.

SIDNEY WAXMAN: Larix decidua 'Varied Directions' was a seed-ling found in Connecticut in 1968. Its growth habit is quite different from other weeping larches in that the major branches tend to grow outward with a slight upward curvature while the lateral branches, which are much thinner, cascade down. They are vigorous and can put on as much as 2½ ft of growth per year. Propagation by cutting remains a problem with rooting percentages between 40 and 60%. It can be grafted onto Japanese larch standards.

Sciadopitys verticillata 'Wintergreen' was selected from among a large group of seedlings after many years of observation and testing. It was given the cultivar name Wintergreen because it has consistently retained the dark green color of its foliage throughout the winter whereas the foliage on most other trees turn bronze. These color differences probably would not have been observed had the trees been growing in a sheltered location. Our nursery is located on a hilltop with full exposure to the sun and wind, and as a result, many of the umbrella pines exhibited color changes from green to bronze and, in some cases, to tan on their western exposures. A second attribute is that the tree is densely branched and has a slightly greater growth rate than others in the nursery. A third, and equally important attribute is that it can be readily rooted from cuttings. The tree after 29 years is over 16 ft tall with an annual growth of 14 in.

Pinus strobus 'Golden Candles' was a variegated seedling among many collected from a witches'-broom. Its outer needles are mainly yellow with green tips while the older foliage is entirely green. The plants after 9 years are about 6 ft. tall.

BILL FLEMER III: The Yoshino cherry (Prunus × yedoensis) is one of the most vigorous growers of all the Japanese cherries and is especially suited for street tree and park planting from Zone 5 south. The flowers are white or pale pink in color. The cultivar 'Afterglow' (P.P. No. 5730) is a seedling of the 'Akebono' cultivar of the Yoshino cherry. The flowers are a rich rose-pink color, much deeper than the parent tree.

It is a rapid growing tree, 40 feet or more tall, and as wide, that forms a flat-topped specimen at maturity. It has proved to be somewhat more cold hardy than the parent species and has come through unharmed when ordinary *P. yedoensis* trees have suffered winter cracks in the bark. It bears masses of large single pink flowers in late April and is a choice variety for street tree use or mass planting, either alone or in combination with the normal white Yoshino cherries.

The Green Vase zelkova (P.P. No. 5080) is a rapid growing tall tree with the vase-shaped branching habit of our native American elm, but not susceptible to the Dutch elm disease. It is taller and not so broad as Village Green zelkova when mature.

It is twice as rapid growing as the cultivar Village Green as a young tree and 2-year old trees are two or three times taller. It has large bright green foliage which turns an orange color in the fall. Like other zelkovas it is tolerant of atmospheric pollution and heat reflected from the pavement and grows well on city streets. It is a vigorous, and shapely addition to this increasingly popular species of shade trees.

The 'Summer Stars' dogwood (P.P. No 3090) is a cultivar of the Japanese dogwood (Cornus kousa) which is noted for its very unusual flowering period. The parent tree, which was discovered on Long Island, retains the flower bracts (petals) in an unblemished condition very late into the summer, many weeks after the flowers of normal Japanese dogwoods have faded and dropped. Although younger plants grown in other areas do not keep their flowers until the end of August as does the parent tree, they are still in a showy condition for at least three weeks after normal Japanese dogwoods have lost their flowers.

Because it is an abundant fruiter, 'Summer Stars' Dogwood has a second display period at the end of summer and early fall when it is covered with rosy-red, strawberry shaped fruits. These fruits are a preferred bird food and consequently 'Summer Stars' has great value for attracting birds into the garden. The fall color of the leaves is a vivid maroon red and the plant is more drought resistant and hardy than our native white dogwood. It is also highly resistant to the dogwood borer and club gall, both of which are serious pests of C. florida.

Being vegatively propagated, 'Summer Stars' dogwoods come into bloom at a very early age, normally 4 to 6 years before seedling dogwoods of the same age begin to flower.

GARY KOLLER: Catalpa fargesii, a tree native to western China, is represented at the Arnold Arbortum by a tree approximately 70 years old. As of December, 1985 it stands 55 feet tall and spreads 30 feet across forming a small, ovoid, open-crowned tree in the same size category as a large crabapple or hawthorn. The foliage is much finer in texture than most species of catalpa being only 3-4 in. long with a moderate green color throughout the summer. The leaves and young shoots are covered with fine stellate hairs. Farges catalpa appears to have the notable characteristic of

being free of powdery mildew which so severely affects several of our other catalpa species.

In Boston, Massachusetts, peak flowering occurs the third week of May. Flowers are produced in terminal corymbs with 7 to 15 blossoms per cluster. Flowers are 1½ in. long and nearly as wide, with 5 rounded, frilled lobes. Flowers have a white background color which is densely spotted with rose-purple spots giving the blossom a distinct appearance of being rose-purple. The floral throat bears two reddish brown blotchs. Flowers are slightly fragrant. Flowering is less prolific than the C. bignonioides but perhaps this could be improved by deliberate selection seeking superior flowering individuals. Seed pods are slender and 12 to 18 in. long.

According to published accounts this plant was first introduced to France towards the end of the last century and the first record of flowering, under cultivation, in the west, is at Aldenham House, Elstre, in Great Britain in 1914.

In addition to the typical species we are growing C. fargessi f. duclouxii, which is native to Central China, and was originally treated as a separate species. At the Arnold Arboretum it differs in having glabrous foliage and in being of a smaller stature and more open growth than typical C. fargesii.

Seeds being distributed today result from open pollination. Any variation in seedlings which result may be due to cross pollination with other neighboring species of catalpa growing at the Arnold Arboretum.

Seeds for C. fargesii were collected from A.A.17664 provided to the Arnold Arboretum by F. Meyer, U.S. Department of Agriculture, in 1914. Seeds for C. fargesii f. duclouxii were collected from A.A. 592-60-C originally provided as grafted plants by Hillier and Sons, Winchester, England in 1958.

Narrow form and healthy dark green foliage throughout the growing season provides Manchurian catalpa with two distinctive landscape attributes. Catalpa bungei forms a tall, narrow crown. The oldest tree at the Arnold Arboretum being 65 ft tall and 20 to 24 ft across making it a useful shape for narrow landscape spaces.

The leaves are narrowly ovate to somewhat triangular, 3 to 5 in. long, rich dark green throughout summer and appear to be free of powdery mildew.

In the Boston area peak flowering occurs the 3rd week of May. The inflorescence is a compact 3 to 12 flowered corymb. Individual flowers are 1½ in. long and wide, bear five lobes, and are white in color with maroon markings inside the throat. Seed capsules are long and slender ranging from 18 to 30 in. long.

This species is native to Northern China and is common around Peking. It was first introduced into North America in 1904 by the Arnold Arboretum in the form of plants provided by E.T. Williams from Peking. What is now grown and offered by the nursery industry in North America is incorrectly C. bignonioides 'Nana' and sometimes C. ovata.

Seeds being distributed today resulted from open pollination. Any variation in seedlings which result may be due to cross pollination with other neighboring species of Catalpa growing at the Arnold Arboretum.

Seeds for C. bungei were collected from AA 12977, the original introduction from China. Seeds require no special pretreatment to insure germination.