

but *V. lantana* would be a good choice.

VOICE: *Viburnum lentago* is a good understock.

ED LOSELY: We find that *V. lantana* is good for *V. carlesii* and related types.

JOERG LEISS: *Viburnum lantana* suckers no matter what you do.

MODERATOR SHUGERT: Is there a difference in winter hardiness among *Pyrus calleryana* cultivars?

MICHAEL YANNY: We have a nice specimen of 'Select' at the Wisconsin Arboretum. The flowers are not hardy but the tree is substantially. At Johnson's Nursery we have ordered in whips of 'Bradford' and 'Greenspire' for the last 2 years and they have all had bark splitting problems.

NEW AND USEFUL PLANTS

JACK ALEXANDER, MODERATOR

MODERATOR ALEXANDER: Our first speaker today on this topic is Kurt Tramposch.

KURT TRAMPOSCH: *Lamium* spp. are members of the mint family and are useful as shade-loving groundcovers because of their variegated foliage, rapid growth, and undemanding cultural requirements. An excellent review of *Lamium* spp. can be found in the 1981 summer edition of the American Rock Garden Society Bulletin. Because of their aggressive nature most *Lamium* spp. should be used with discretion.

A commonly cultivated taxon is *L. maculatum* which produces an invasive, dense low carpet in a short time and has purplish flowers throughout the summer.

An English introduction, named *L. maculatum* 'Beacon Silver', is more restrained and produces a mass of silver leaves in the shade.

The most widely cultivated species, *L. galeobdolon*, (now reclassified as *Lamiastrum galeobdolon*) is commonly known as yellow archangel. I have found this ground cover to be an attractive trouble-free species that is useful to brighten shady areas of the garden. It tolerates poor soil and shade as deep as that under mature hemlocks, but does not do well under full afternoon sun. Its welcome foliage appears very early in April and clusters of bright yellow flowers are produced by the end of the month in Boston. *Lamiastrum galeobdolon* must be kept away from other plantings as it can be surprisingly prolific.

Five years ago I was given a new cultivar of *L. galeobdolon* by my father. This, as yet unnamed cultivar, enjoys the advantages of the species without its invasiveness. Its leaves have a mottled variegation varying slightly from that of the species. The plant stays compact, with flowers and leaves about 1/3 that of the species. It layers out as it spreads, very similar to *Vinca*, and is readily propagated. I have found it to be trouble-free and hardy to -25°F in zone 5b west of Boston. It deserves wide distribution and I would be happy to provide plants to anyone who would care to propagate it.

MODERATOR ALEXANDER: Our next speaker is Joerg Leiss.

JOERG LEISS: *Buxus* 'Green Gem' is a natural hybrid between *B. microphylla* var. *koreana* and *B. sempervirens*, *Buxus microphylla* var. *koreana* being the female parent.

The plant was selected from a seedling population of about 40 plants. It grows into a perfect round ball and is hardier than our *B. microphylla* var. *koreana* 'Winter Beauty'. It roots readily and makes-up 2 to 3 years faster than *B. microphylla* var. *koreana*. It maintains the dark green color of *B. sempervirens* and does not exhibit the excessive seed pod production of *B. microphylla* var. *koreana*.

Tilia cordata 'Green Globe' was found when we were still growing seedling *Tilia* into standard trees. *Tilia* seedlings are extremely variable and show growth sizes from 2 to 3 ft bushes to 4-in. caliper trees in the same age and population of seedlings. To exhibit the branch pattern and shape, the tree is either budded on a *Tilia* understock at 6 or 7 ft or top-grafted, top-grafting being preferable.

MODERATOR ALEXANDER: Our next speaker will be Jim Cross.

JIM CROSS: *Cornus kousa* 'Lustgarten Weeping' originated as a chance seedling in the Long Island, N.Y. nursery of Baier Lustgarten. The parent plant is a very low, wide-spreading form with branches arching just off of the ground in a manner similar to a classic deciduous cotoneaster. Its apparent growth rate, flowering habit, and fall foliage color are like the species. Like the species, it sets flower buds well in full sun and very sparsely, if at all, in dense shade. The flowers are of normal size but are better presented because of the low arching position of the branches. The plant at 12 years is 10 ft wide and 2½ to 3 ft high.

Cornus kousa 'Elizabeth Lustgarten' originated as a chance seedling in the Long Island, N.Y. nursery of Baier Lustgarten. The parent plant has developed no apical leader and takes on a distinct weeping habit which is of a quite graceful nature. It gains in height only from the upward arch of new side branches. At 12 years it is about 7 ft in height and 4 to 5 ft in width. Other characteristics are as stated for its sister plant, 'Lustgarten Weeping'.

Both plants graft and bud very well on *Cornus kousa*.

MODERATOR ALEXANDER: Harold Pellett will next show us some hardy plants from Minnesota.

HAROLD PELLETT: A few plants that I feel warrant additional consideration for use include:

Lonicera alpigena 'Nana' is a very nice dwarf honeysuckle with very rich dark green foliage. The foliage is quite coarse-textured. It is somewhat slow growing and thus probably not a good moneymaker.

Another possible small growing honeysuckle is a compact selection of *L. caerulea* now being evaluated in the NC7 trials. It has done well for us and in the Dakotas, but not as well in Wisconsin for Ed Hasselkus.

Prunus maackii is now being grown by nurseries in our area primarily because of its showy copper-colored winter bark.

Tilia mongolica is a tree that caught my attention. I like its slightly exfoliating bark and in comparison to littleleaf linden, it's not quite so

dense and formal. The few plants I've seen have a slightly pendulous branching habit.

Aesculus 'Autumn Splendor' is a tree that we named a few years ago but, at present, it isn't available in the trade. It can be propagated by grafting. It has an excellent dark green foliage without late season discoloration or defoliation that commonly occurs with Ohio buckeye. It develops an excellent maroon red fall color.

Acer rubrum 'Northwood' is a recent introduction of ours. It comes from a northern Minnesota seed source and was introduced primarily for its adaptation in Minnesota and possibly other northern states where other currently available cultivars of red maple are not reliably hardy. It has an excellent branching habit and is a fast grower. We have applied for a patent on this tree.

Forsythia 'Northern Sun' will be a 1983 introduction that has been reliably flower bud hardy for us. It does get quite large and is not of equal plant quality as *F* × *intermedia* clones, where they are reliable. It's probably a hybrid between *F. ovata* and *europaea*.

We are continuing our breeding efforts to develop hardy deciduous azaleas. Four clones are currently being propagated for introduction. 'Pink Lights' and 'Rosy Lights' are selections from the original northern lights hybrids, which are currently available as F_1 hybrids. 'White Lights' will be introduced to the retail trade in 1985. The fourth cultivar currently in propagation has not been named as yet but we plan to continue the Lights series of names to help identify plants as being from our program and thus possessing a high degree of winter hardiness. The 4 clones currently in propagation are hardy to -40°F . We have selections of many other colors under evaluation and are optimistic that we will eventually have a wide range of colors available that are winter hardy in Minnesota.

MODERATOR ALEXANDER: Ruth Kvaalen will next present a promising plant.

RUTH KVAALEN: Landscapers often seek relatively small, low maintenance, pest-free shrubs that do not spread or outgrow their allotted space rapidly. *Andrachne colchica* fits this description. A member of the euphorb family and native to the Caucasus area of Asia, this plant is sometimes called Caucasian spurge. Authors say its height is up to 3ft, but the plants I have observed grow no taller than 15 in. The plants form low mounds of fresh green foliage.

The principal ornamental effect comes from the foliage, which changes little from spring through autumn. Leaves are oval, $\frac{1}{2}$ to $\frac{3}{4}$ in. long, closely spaced alternatively along the stem. The textural quality is medium fine, with a somewhat delicate appearance.

Andrachne colchica is monoecious, with staminate and pistillate, yellow flowers produced on new wood throughout the summer months. However, the flowers are tiny and are born in leaf axils, so they contribute little to the landscape value of the plant. Fruits are white and also very small.

Its neat, mounded habit and its size make this plant a good landscape candidate. A clump at the Morton Arboretum, planted before 1930, is now about 8 ft in diameter. Another clump, planted in 1957, is about 3 ft across. Height is about 15 in. Soil at the site is a heavy clay with poor drainage.

The species grows well in ordinary soil in full sun or partial shade. It has no apparent insect or disease problems. Propagation is from seeds or by softwood cuttings.

Andrachne colchica is hardy throughout USDA hardiness Zone 5 and possibly in considerably colder areas. Test plants in Zone 3b at the Minnesota Landscape Arboretum have come through at least one winter very well. The twigs may be selectively pruned or even cut back close to the ground in the spring.

As of this date, I know of no commercial sources. Check arboreta or botanical gardens for cuttings or seeds.

MODERATOR ALEXANDER: Thomas Pinney has three plants to show us.

THOMAS PINNEY: *Betula platyphylla* var. *japonica* (University of Wisconsin P.I. 235128). This beautiful non-exfoliating, pure white-barked birch was collected in 1956 by Dr. Creech as seed in open fields at 1780 m above Shefuyu Onsen, Japan. The plant has an upright broad pyramid form and matures at 50 to 60 ft. The leaf is a shiny green and arrow shaped, turning to a bright, clear yellow in the fall. Plants have a wide geographic adaptability from -30°F to 120°F (Northern Wisconsin to Oklahoma). Leaves remain on plants even during prolonged temperatures of 120°F . It is highly resistant to bronze birch borer. These plants continue to thrive at the University of Wisconsin Arboretum in Madison after 27 years. All other white-bark birches have succumbed to the bronze birch borer. This selection was not part of Dr. Santomours tests reported in the December 1, 1982 issue of *American Nurseryman*.

Juniperus horizontalis 'Wisconsin'. This plant was selected by Dr. Ed Hasselkus of the University of Wisconsin in 1964 near Brooks, Wisconsin. It is a male plant with a mixture of scaly and needled blue-green foliage which turns to a battleship gray in fall. Maximum height is 8 in. No twig blight has been observed. It mounds slightly with a good radial habit and is fast growing.

Rosa \times *rehderana* (Polyantha Rose) 'Nearly Wild'. This plant is a cross between 'Dr. W. Van Fleet' \times 'Leuchtstern.' Buds are small, deep pink, with curling petals that open to a large, single pink flower. These are borne even during cutting propagation and are profuse, often reaching over 100 blooms at any one time. Mature plants are 4 \times 4 ft. It makes an excellent hedge as it continues to bloom all season until freeze up. It grows well in a container with excellent blossoms and is hardy to Zone 4. No pests or diseases have been observed.

MODERATOR ALEXANDER: I have 3 rare birches to show next.

JOHN H. ALEXANDER III: I have for several years been very impressed with an Asiatic, white-barked birch, *Betula ermanii*. It is a rare species in this country, seldom seen outside of botanical gardens. In Japan it is the most common of birches and its range extends over much of north-east Asia.

E.H. Wilson reported seeing *Betula ermanii* trees in Hokkaido that were over 65 ft tall having a girth of 13 ft. He also wrote that the trunk frequently branched only a short distance from the ground before rising to form a broad-crowned tree.

This same species also grows at high elevations, but there it may be reduced to a low, broad shrub. In the wild it grows in a wide range of conditions and displays considerable diversity. Having such diversity offers

the opportunity to select, for cultivation, forms showing superior growing habits and perhaps insect resistance.

The bark of *Betula ermanii* may be grayish to lustrous white and is often tinged with a hint of reddish-brown or pinkish hue. It peels off in white, horizontal strips and, in my opinion, it is equal to the best of the white-barked birches.

Propagation experiments at the Arnold Arboretum with seed collected in Japan showed that 3 months of cold stratification prior to sowing yielded the best rate of germination. The number of seedlings resulting from cold stratified seed was more than four times that of unstratified seed.

Another birch which I find very attractive is the botanical variety *Betula ermanii* var. *saitoana*. The range of this variety is essentially restricted to the Korean island of Cheju where it has been collected on Mt. Halla at elevations of 3900-6500 ft.

There are two plants of *Betula ermanii* var. *saitoana* in the collection of the Arnold Arboretum; I know of no others in cultivation on this continent. The principal difference between this variety and the typical form of *B. ermanii* is one of leaf size and structure. Its leaves are smaller with fewer veins.

One of these two specimens at the Arnold Arboretum is at 10 years of age, little more than a shrub. Five feet tall and single stemmed for only a few inches, it has brownish bark, becoming white.

The other individual, also 10 years old, is a beautiful small tree of about 8 ft. It has a clear bole for only about a foot, but all the major branches display white bark shredding in thin strips. Its small leaves and slow rate of growth make it appear as a miniature. The site chosen for it among dwarf conifers accents this appearance.

Whether dwarf or slow growing, it is not a plant for everyone, but may be just right for the spot where most other white barked birches would soon be too large.

Another birch species that is not widely known is *Betula davurica*, a native of Manchuria, northern China, Korea and Japan. A 72 year old tree at the Arnold Arboretum is approximately 35 ft tall and 40 ft wide.

Betula davurica has bark that exfoliates in attractive, shaggy, brownish-gray flakes. It is often compared to our native river birch. Although their bark is somewhat similar, *B. davurica* lacks the graceful arching and twiggi-ness of *B. nigra*. *Betula davurica* does tolerate drier, poorer soils than does the river birch. Seed germination trials at the Arnold Arboretum were most successful with seed which received 3 months cold stratification prior to sowing. This treatment yielded approximately 6 times more seedlings than did unstratified seed.

It has been suggested that both *Betula ermanii* and *B. davurica* may show resistance to the bronze birch borer. They may, but clearly much more testing is in order before we can ascertain any real resistance.

MODERATOR ALEXANDER: GARY KOLLER sent along one plant to show.

GARY L. KOLLER: Bladder-senna, (*Colutea* × *media*), is underappreciated and overlooked as a medium sized shrub. It is capable of thriving in full sun on dry, gravely infertile soils. In fact, it will grow and self sow to colonize sites too inhospitable for many more refined "ornamental" plants. Bladder-senna is the perfect plant for restoring the banks of fresh highway cuts; it may adapt to mine spoil reclamation; it is useful in planting islands

and spaces at shopping malls; and it is perfect for semi-wild urban park lands.

Colutea × *media* is probably a hybrid of *C. arborescens* of Southern Europe and *C. orientalis* of Asia. It is hardy to approximately 10°F. *Colutea* grows quickly into a rounded upright shrub 6 to 10 ft tall. At the Arnold Arboretum, peak flowering occurs in mid-May with scattered blossoms appearing throughout the summer. Flowers are pea-shaped and range in colors from the typical butter yellow to those which blend through markings or tints of copper, pink or reddish-brown. Flowers are followed by large, thin walled, inflated pods which exhibit colors of solid lime-green to those richly tinted with pinks and bronze. The seed pods are highly ornamental from June through early September, then they begin to ripen and turn straw-brown in color. The ornamental qualities of these inflated bladders compete successfully for attention with many flowering shrubs.

Seeds are prevented from germination by a hard seed coat which can be overcome by mechanical scarification, or with a 1-hour sulfuric acid bath, or by steeping the seeds in hot water for 24 hours. Seedlings germinate quickly and grow rapidly. Plants develop a thin, rangy root system which makes transplanting difficult. However, they might adapt to container culture and a fruiting plant in a container should have great sales appeal for garden centers.

In the landscapes bladder-senna thrives in the poorest, most infertile soils and at sites subject to high levels of atmospheric pollutants. They will not tolerate much shade nor heavy, poorly-drained soils. They are reported to be subject to attack by aphids. Presentation of plants in more manicured and refined landscape spaces is enhanced by tightening up growth with rejuvenation pruning in early spring.

If individuals with superior ornamental characteristics occur in your seed lots they can be maintained vegetatively by cuttings.

Thursday Evening, December 16, 1982

The thirty-second annual banquet was held in the Ambassador Ballroom West of the Amway Grand Plaza Hotel, Grand Rapids, Michigan.

On behalf of the Society, a graduate student award was presented to Mr. Fred Miller and his advisor, Dr. Frank Blazich, North Carolina State University, Raleigh, North Carolina.

AWARD OF MERIT

Presented by Ralph Shugert

This award exemplifies the true meaning of our beloved Society's motto "to seek and to share", because truly the award this evening goes to two loyal, devoted, and dedicated IPPS, Eastern Region members. My words this evening are not going to be lengthy. Although those of you who know me may find that statement hard to believe. The brevity of words in no manner is intended to reduce the magnitude of the meaning of the award to the recipients.

Undoubtedly, some in the room tonight must wonder what is an Award of Merit? In one word it is appreciation. It is the