

covered with 5-cm layer of pine bark. Smaller clematis in 0.5-liter containers (9 cm × 9 cm × 19 cm) are prepared in the same manner, as I mentioned earlier, using bamboo canes 40 cm long. We sell these packaged in plastic bags with large colorful tags or in colorful cardboard packages. We sell these in a box of 24 plants containing six colors of clematis.

I believe that the production of clematis will continue to grow and that the plant has an excellent market potential with appropriate promotion.

Innovative New Plants and Future Trends

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OBJECTIVES

I will attempt to outline some of the present and future trends in the field of ornamental horticulture in North America and illustrate these trends with a selection of new plant introductions which I personally feel are of potential outstanding ornamental landscape merit. My personal instincts regarding trends have been formulated from information gathered from a range of sources including: commercial growers, professional and amateur horticulturists, and especially from customers of our retail mailorder company.

General Trends in Marketing and Merchandising.

- Past decade has seen an escalating demand at consumer level for more unusual plants of outstanding ornamental merit.
- Consumers are now offered an ever increasing range and diversity of plants from an increasing number of sources—mass retail merchandisers are for example, increasingly emphasizing the importance of diversity and quality of their plant offerings. These mass retail merchandisers are assuming an increasingly important role in the marketing of live horticultural products.
- Consumers are becoming more informed and knowledgeable, requiring products which will fulfill specific needs, combined with the potential of cultural success.
- Increased knowledge combined with a wider choice of sources is creating consumers who are demanding “value for money” (i.e., given products assume a perceived value).
- Improved and increased consumer education is going to be vital as demand for our products increases—ultimate consumer satisfaction and success is critical!
- Education will increasingly be targeted and focused on a more regional and local basis. Cultural methods and product suitability are critical factors in such a vast geographical area as North America, therefore, horticulture is destined to become more regional in many facets.

Specific Trends Related to New Plant Introduction.

- Individual plants should, where possible, exhibit extended seasonal ornamental interest. In addition to floral features: habit, foliage, fruits, and bark are important ornamental assets.
- With many landscapes decreasing in size, subjects with a compact growth habit are desirable.
- Resistance to diseases and pests. Subjects should be “environmentally” friendly. I can envisage much tighter regulations on the use of chemicals in both home and commercial landscapes.
- Plants that succeed with reduced maintenance (i.e., pruning and watering) will always be popular.
- From an industry “credibility” standpoint new introductions should ideally be improvements over existing offerings.
- Also from a “credibility” viewpoint it is imperative that as producers we market plants “true to name” — understanding the implications of vegetative vs. seed propagation is critical.

NEEDLE-LEAF EVERGREENS

Cryptomeria japonica ‘**Gyokuryu**’. Performed well in the Atlanta Botanical Gardens conifer trials; tolerant of heat and humidity; handsome dark green foliage.

× *Cupressocyparis leylandii* ‘**Golconda**’. A European selection; intense golden-yellow color, appears to hold color well in winter and very little summer burn.

Pinus contorta ‘**Taylor’s Sunburst**’. Selection of the lodgepole pine with golden-yellow new spring foliage; upright growth habit; attractive bark.

Thuja plicata ‘**Spring Grove**’. Selection made at Spring Grove Cemetery, Cincinnati, OH; foliage holds color well in winter; deer and bagworm resistant; very useful sheared; snow resistant; rapid-growing evergreen screen.

DECIDUOUS TREES

Acer pensylvanicum ‘**Erythrocladum**’. Spectacular coral-pink-red stems with distinct white striations in winter; fantastic in winter landscapes; outstanding golden-yellow fall color.

Acer palmatum ‘**Tamukeyama**’. This member of the dissectum group is considered by many growers to be the best of the purple-leaved types on account of its ability to retain its desired purple-red leaf color throughout hot, humid summers.

Acer palmatum ‘**Shaina**’. Originated as a witch’s broom on *A. palmatum* ‘Bloodgood’; dense compact growth developing a layered outline; dark red leaves densely arranged on truncated shoots; ideal for small gardens.

Amelanchier × *grandiflora* ‘**Forest Prince**’. A Roy Klehm selection; clear, healthy, leathery foliage plus excellent orange-red fall color; profuse, fluffy pure-white flowers produced along the length of the stems, not just at the tips.

Betula nigra ‘**Little King**’, **Fox Valley**TM birch. Discovered by Jim King, Oswego, IL; dense, compact oval-rounded growth habit with branches down to ground level; glossy, healthy mid-green foliage; exfoliating bark enhances winter ornamental effect; 10 ft high × 12 ft wide in 20+ years with no pruning to achieve its

desired shape; tolerates moist soils; ideal for small gardens and landscapes.

***Cercidiphyllum japonicum f. pendulum* ‘Amazing Grace’.** Discovered in a seedling population by Theodore Klein, Crestwood, KY; outstanding specimen growing in Spring Grove Cemetery, Cincinnati, OH; mound of gracefully weeping branches clothed in attractive blue-green orbicular-shaped leaves; apricot-orange fall color.

***Cercis chinensis* ‘Avondale’.** A New Zealand selection; very prolific bloomer on an annual basis; dwarf compact, upright grower — ideal for small landscapes; tough, leathery foliage.

***Cercis canadensis* ‘Cove’.** Selection made by Tim Brotzman, Madison, OH; weeping form with an umbrella-shaped crown; harder than *C. ‘Traveller’*; excellent in winter landscape.

***Cornus florida* ‘Spring Grove’.** Selection made in Spring Grove Cemetery, Cincinnati, OH; very heavy annual bloom; often blossoms are produced in pairs; disease (Anthracnose) resistant and very hardy.

***Cornus kousa* ‘Wolf Eyes’.** Introduction from Manor View Farm, Monkton, MA; possibly the best variegated *C. kousa* selection; shows little, if any, leaf burn; prominent white marginal leaf variegation — very stable; thrives in sun or shade — in sun the leaf assumes an appealing curled appearance; pink-red fall color; heavy blooming with star-shaped flowers; vigorous, spreading growth habit.

***Cornus capitata* var. *angustata* (syn. *C. kousa* var. *angustata*).** Narrow, leathery evergreen foliage — fully evergreen in Zone 7; locate in a protected (wind) site; excellent heat tolerance; numerous smallish, white-cream blossoms.

***Magnolia* ‘Butterflies’.** A Phil Savage hybrid (*M. acuminata* × *M. denudata* ‘Sawada’s Cream’); one of the finest of the new yellow-flowered magnolias; deep yellow color — abundant flowers before foliage emerges; forms a neat, compact small tree and is very hardy.

***Malus* ‘Amberina’.** A Father John Fiala hybrid; strong semidwarf tree up to 10 ft tall; creamy white flowers followed by a profusion of persistent bright orange-red fruits; handsome deep green summer foliage turns golden in fall; good disease resistance.

***Quercus* ‘Heritage’ (*Q. robur* ‘Fastigiata’ × *Q. bicolor*).** Patented selection by Earl Cully, Heritage Trees Inc.; strong central leader with a dense, uniform, pyramidal crown, vigorous, more hardy than *Q. robur*, leathery, dark green foliage which is mildew resistant.

***Ulmus* ‘Morton’, Accolade™ elm.** A Morton Arboretum introduction; spontaneous hybrid of *U. japonica* × *U. wilsoniana*; extremely glossy, dark green foliage and rich golden-yellow fall color; good Dutch elm disease resistance together with excellent elm leaf beetle and leaf miner resistance; upright growth habit; excellent cold hardiness.

DECIDUOUS SHRUBS

Aesculus parviflora. An underutilized American native with a graceful airy feeling; ideal as an isolated lawn specimen or mass planting on slopes or banks; grows into a mound shape 8 to 10 ft tall × 10 to 15 ft wide; 10- to 12-inch perpendicular white flower spikes in mid-summer; appealing yellow fall color.

***Buddleja davidii* 'White Ball'**. A recent introduction from Boskoop, Holland; dense, dwarf habit, 4 to 5 ft tall × 5 to 6 ft wide; panicles of white flowers freely produced in mid to late summer, excellent for restricted spaces — a “natural dwarf”.

***Calycanthus floridus* 'Michael Lindsey'**. Selected by Allen Bush; lustrous, dark green leaves turn a golden yellow in fall; red-brown flowers emit a strong fruity fragrance; dense, compact, and rounded habit; 5 ft × 5 ft in 10 years; ideal for small landscapes.

***Clethra alnifolia* 'Ruby Spice'**. A Dick Jaynes (Broken Arrow Nursery, Hamden, CT) introduction; fragrant flowers a rich rose color which is retained through the life of the blooms (deeper than 'Pink Spires'); tough, lustrous dark green foliage which turns yellow-gold in fall; salt tolerant.

***Deutzia* × *hybrida* 'Magicien' (syn. *D. longifolia* 'Magicien')**. Large freely produced flowers of a rich red-purple and white-edged petals; “eye catching” flowers.

***Hamamelis* × *intermedia* 'Angelly'**. European (Dutch) selection; clear lemon-yellow, fragrant blooms in February/March, produced annually in profusion; color “carries” well in landscape.

***Hydrangea macrophylla* 'Tovelit'**. Outstanding clone with a dense and extremely compact habit (2 to 2½ tall); flowers are extremely long lasting, displaying a kaleidoscope of colors from a mid pink transforming to a luscious purple-mauve; attractive leathery, dark green foliage.

***Hydrangea macrophylla* 'Lemon Wave'**. Eye-catching foliage, each leaf colored mid green with yellow and white mottling; beware of reversions.

Hydrangea arborescens* ssp. *radiata. Brilliant white underside to each leaf; especially effective when wind blows, white, lacy fragrant flowers in mid to late summer; excellent woodland plant.

***Hydrangea quercifolia* 'Pee Wee'**. Compact form (2 to 3 ft tall × 3 to 4 ft wide); foliage turns rose purple in fall and remains attractive well into winter; ideal plant for small gardens.

***Rosa* 'Ombrée Parfaite'**. Gallica rose introduced in 1832; intense dark crimson flowers; one of the darkest colored within its group; intensely fragrant; an example of an “old fashioned” rose worthy of reintroduction.

***Rosa* 'Ausham', Geoff Hamilton™ shrub rose**. A recent David Austin English rose introduction; cupped-shaped, highly fragrant blooms; “old fashioned” look; good disease resistance; such characteristics contribute to the popularity of this group of hybrid roses.

***Rosa* 'Meideauri', Leonardo Da Vinci™ rose**. Meilland (France) floribunda of the Romantica group; many petalled, pink flowers of “old fashioned” form; sweetly fragrant; compact growth habit; high disease tolerance.

***Rosa* ‘Meilavio’, Traviata™ rose.** Meilland (France) Romantica group; large, red “old fashioned” type blossoms; high petal count; ideal for outdoor or indoor decoration; outstanding dark, leathery disease-resistant foliage.

***Rosa* ‘Meiviolin’ Pierre de Ronsard® rose (syn Eden Rose 88 rose).** Meilland (France); one of the finest climbers introduced in recent years; another Romantica rose; fragrant, pastel-pink “old fashioned” blooms produced in profusion during summer; excellent disease-resistant foliage.

***Rosa* ‘Meitosier’, Polka™ rose.** Meilland (France); another outstanding new climber within the Romantica group; unusual mandarin-orange color of the “old fashioned” flower form; disease-resistant foliage; tough, robust grower; new climbers are in great demand.

***Rosa* ‘Meimodac’, Royal Bonica™ rose.** Meilland (France); a recent introduction within the Meidiland group of landscape roses; deep pink flowers are freely produced over the summer months; a group of tough, disease resistant, easy care roses.

***Rosa* ‘Meikrotal’, Scarlet Meidiland™ rose.** Meilland (France); another recent introduction of a tough, low-maintenance Meidiland landscape rose; fully double, vivid scarlet blooms produced throughout summer and into fall.

***Rosa* ‘Morplag’, Playgirl™ rose.** An outstanding single, lavender-pink shrub rose from master American hybridizer Ralph Moore of Visalia, CA; blooms from summer to late fall — even till nearly Christmas in the South; excellent disease-resistant foliage; tolerates medium shade.

***Rosa* ‘Noatraum’, Flower Carpet™ rose.** This carefree landscape rose exemplifies how an intense and focused marketing program can make an “average” rose extremely and widely popular.

***Syring* × *hyacinthiflora* ‘Blanche Sweet’.** A Father John Fiala hybrid (*S. oblata* × *S. vulgaris*); tolerant of heat and cold; large panicles of multipetaled soft whitish-blue, tinged-pink fragrant flowers; flowers at an early age; good disease-resistant foliage; upright, compact grower (10 ft) — ideal for small landscapes.

BROADLEAF EVERGREENS

***Buxus sempervirens* ‘Vardar Valley’.** One of the best forms of the species; originally collected in Yugoslavia by Edgar Anderson of the Missouri Botanical Garden, St. Louis, MO; neat, low-growing, flat-topped, mounded form; outstanding blue-green foliage.

***Daphne* × *burkwoodii* ‘Briggs Moonlight’.** Arose in the tissue culture laboratory of Briggs Nursery, Olympia, WA; reversed variegation of the popular D. ‘Carol Mackie’; a narrow green margin on each leaf frames a broad and consistent yellow central zone, thus creating a most striking effect; surprisingly strong grower.

***Pieris* ‘Flaming Silver’.** A European introduction which was a sport of ‘Forest Prince’; young leaves are red with a pink margin which eventually turns a silvery white; a striking color combination which remains effective year round.

***Pieris* ‘Bert Chandler’.** Raised by Australian nurseryman Bert Chandler over 60 years ago — a plant which truly deserves wider recognition; outstanding foliage

coloration early in season; leaves emerge a salmon-pink changing to cream and white before assuming a transition from light to a darker green; a spectacular "kaleidoscope of color"; shy in flower production.

***Rhododendron* 'Samoa'**. A David Leach hybrid; one of the breeder's finest red-flowered creations; very compact grower, 2 to 3 ft after 5 years; handsome, healthy dark-green foliage.

***Rhododendron* 'Capistrano'**. Considered by its hybridizer, David Leach, to be probably his best yellow-flowered hybrid; frilled, lemon-yellow blooms produced freely in large, rounded trusses; dwarf, compact habit; healthy dark green foliage.

VINES

***Clematis* 'Piilu'**. Recent introduction from Estonia; belongs to "patens group"; cross between *C.* 'Hagley Hybrid' and *C.* 'Mahrouyi'; handsome, six-petaled flowers a light purplish-pink with wide, distinct red bars; first flowers are double, later ones emerge as single; heavy bloomer, even on young plants; very hardy growing to 6 ft tall; also good for container culture.

***Clematis* 'Blue Light'**. Double sport of *C.* 'Mrs. Chalmondeley'; large, double flowers are pale blue-violet to pale blue; very free flowering; flowers June through August-September; strong grower to 6 ft, also good in containers.

***Clematis montana* 'Freda'**. Deepest flower color of any *C. montana*; raised and introduced by English hybridizer Jim Fish in 1985; top award winner in Boskoop, Holland, trials; flowers a deep pink with darker pink-red margins to the petals; deep bronze foliage is a perfect foil for the flowers; compact grower which is ideal for container culture.

***Clematis* 'My Angel'**. New cross of *C. orientalis* × *C. intricata*; unique flower color, inside yellow/outside purple with a creamy colored edge; small, nodding flowers in profusion during August, September, and October; outstanding ornamental seed heads in fall and early winter — white fluffy; grows 6 to 8 ft tall.

***Clematis* 'Rogouchi'**. *Clematis integrifolia* hybrid originates from Japan; handsome, elongated, tubular, wax-like flowers of a rich blue-purple are produced all summer long; an ideal subject for scrambling through perennial plantings.

***Campsis ×tagliabuana* 'Indian Summer'**. A European selection of the *C. radicans* × *C. grandiflora* hybrid; trumpet-shaped orange-red flowers are profusely produced in large pendulous racemes in mid to late summer; shorter growing than other clones (up to 10 to 12 ft); also makes an excellent flowering pot plant.

***Parthenocissus tricuspidata* 'Fenway Park'**. Discovered by Dr. Peter del Tredici of the Arnold Arboretum, growing as a sport on a building near Boston's Fenway Park baseball stadium; glossy yellow foliage which turns a yellow-green in summer and brilliant scarlet in fall; performs well even in shade.

***Schizophragma hydrangeoides* 'Moonlight'**. A Barry Yinger introduction; striking foliage shaded and mottled a silvery-gray; outstanding yellow fall color; vigorous.

***Wisteria frutescens* 'Amethyst Falls'**. And introduced cultivar by Bob Head of Head-Lee Nursery, Seneca, SC; beautiful, fragrant lavender-blue truss of flowers

are produced even on young plants; much less vigorous than its Asian counterparts and blooms 3 weeks later thus avoiding late frost damage, then intermittently produces flowers throughout summer; good healthy foliage.

PERENNIALS

***Dendranthema* ‘Emperor of China’.** Invaluable late flowering hardy chrysanthemum; clusters of silvery, old rose-pink, quilled petalled flowers; foliage suffused with crimson at flowering time; known in English gardens in the late 19th century.

***Echinacea purpurea* ‘Leuchstern’ (syn. ‘Bright Star’).** Outstanding clonal selection that must be vegetatively propagated to ensure trueness to name; large, bright rose-pink flowers; a splendid garden performer.

***Cimicifuga simplex* ‘Hillside Black Beauty’.** Fred and Mary Ann McGourty introduction; handsome almost black foliage creates a perfect foil for the arching wands of pure white flowers in late fall.

***Delosperma floribundum* ‘Starburst’.** An extremely hardy selection with striking purple and white flowers; full sun and easy grower.

***Helleborus* Royal Heritage Strain.** An outstanding seedling strain of the Lenten Rose developed by John Elsley in Greenwood, SC; emphasis on both foliage and flower characteristics; bold, handsome evergreen leaves gives year-round appeal; flowers are well shaped and exhibit a range of sumptuous colors over an extended blooming period from early winter through spring; tolerant of heat and humidity; deer proof; health and vigor are a hallmark of the strain.

***Hemerocallis* ‘Rosy Returns’** — A Darrel Apps hybrid exhibiting many of the characteristics associated with the finer daylily hybrids; these characteristics include high bud counts, good flower color and form, repeat blooming, and self cleaning, together with healthy, disease-resistant foliage.

***Hemerocallis* ‘Susan Webber’** — An enticing color combination that is usually only found in the southern evergreen-type daylilies; Flowers are an amazing 5 inches across and are a pearly pink with a heavy picotee edge of deep pink; highly sought after.

***Hemerocallis* ‘El Desperado’** — A Patrick Stamile hybrid which exhibits many of the fine traits of modern daylilies; large, vibrantly colored flowers are a golden yellow with a burgundy halo and picotee edge; totally dormant daylily.

***Hosta* ‘Guacamole’.** This Bob Solberg introduction is a sport of *H.* ‘Fragrant Bouquet’; extremely vigorous; unusual avocado green and aqua-blue leaves remain appealing all summer and tolerate high sun levels without burning; prolific flowering of white and highly fragrant flowers.

***Hosta* ‘June’.** A recent sport of *H.* ‘Halycon’ displaying great substance; golden leaves bordered by a blue and green shaded margin.

***Hosta* ‘Paul’s Glory’.** Recent introduction from Paul Hoffer, Perry, OH; golden leaves are banded by a significant green-blue margin and exhibit a heavy seersucker texture, outstanding!

***Leucanthemum* × *superbum* 'Beauté Nivelloise'**. An old selection worthy of reintroduction; very large white blooms on extremely strong stems, no staking necessary; bold, leathery dark-green foliage.

***Lilium* 'Orienpet' Scheherazade™ lily**. Group of hybrid lilies resulting from crossing orientals and trumpets; more dependable garden plants than either parent group; summer blooming; large flowers of red-orange.

***Liriope muscari* 'Pee Dee Ingot'**. This recently selected lily turf retains the yellow-green color of its foliage into late summer; the foliage color is an excellent foil for the pale-lavender-colored flowers in late summer; vigorous.

***Paeonia* 'Green Lotus'**. Developed from the joint breeding of William Krekler and Roy Klehm; a new group of herbaceous peonies with general appearance of a parrot tulip; semi-double flowers open in shades of lime green and varying degrees of red candy striping.

***Paeonia* 'Pink Luau'**. An outstanding recent Roy Klehm hybrid which is one of the Estate Series of Peonies; sumptuous semi-double, rich rose-pink flowers.

***Phlox* × *procumbens* 'Cabot's Blue'**. Early spring flowering clone with unusual colored flowers; extremely long blooming period — between 3 or 4 months; flowers are a striking pastel lavender-blue.

***Phlox maculata* 'Natascha'**. Striking new selection originating from Russia; unusual colored flowers are lavender-purple and white creating a "pinwheel" effect; highly disease-resistant foliage; flowers 3 to 4 weeks before *P. paniculata* clones.

***Pulmonaria* 'Majesty'**. Shimmering silver leaves are edged green; exhibits little if any leaf burn or powdery mildew; cool pink flowers in early spring; a gem for the shade garden.

***Rudbeckia* 'Indian Summer' / *Monarda* 'Marshalls Delight'**. *Rudbeckia* 'Indian Summer' is an annual with large, brilliant yellow flowers; prolific bloomer; may be perennial in some regions. *Monarda* 'Marshalls Delight' is a Canadian selection exhibiting outstanding disease resistance, especially powdery mildew.

***Viola grypoceras* var. *exilis* 'Syletta' (syn. *V. koreana* 'Syletta')**. Eye-catching silver and green mottled foliage resembles that of the hardy cyclamen; light purple flowers in early spring; self seeding — an excellent groundcover for the informal shade garden.

INNOVATIVE ANNUALS

Brugmansia* × *candida. Now available in an increasing range of flower colors, few container plants can create such an impact in the landscape; full sun to light shade.

***Colocasia* 'Jet Black Wonder'**. Few tropical foliage plants can equal the visual impact of this large, handsome plant with almost black foliage.

***Cordyline* 'Red Sisters' / *Ipomoea* 'Margarita'**. An eye-catching foliage combination at the Chicago Botanical Garden; the red leaves of the *Cordyline* are bold and effective with the vigorous lemon-green of the *Ipomoea* foliage.

***Lantana camara* 'Carlos'**. Vibrant red and yellow flower clusters cover this tough, compact growing plant through summer and fall; full sun in beds or containers; thrives in the most intensive heat and humidity.

***Musa acuminata* (syn. *M. zebrina*)/*Caladium* 'White Christmas'**. A simple yet bold and aesthetically pleasing foliage combination for containers or beds in shade.

***Solenostemon* (coleus) hybrids**. An increasing range of vegetatively propagated clones are now available, many exhibit stunning color combinations; ideal for bedding or container usage.

Strobilanthes dyerianus. A vivid metallic sheen with a rich purple venation complimented with a purple-red underside, hardly describes the uniqueness of this foliage; a shade lover of outstanding merit!

***Vigna caracalla* "snail vine"**. An impressive, highly fragrant twining climber producing tight clusters of "snail-shell like" white to pink-purple flowers in summer; extremely vigorous.