

New Plant Forum[©]

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Phlox 'Pink Parasol' PPAF

Phlox 'Running With Scissors' PPAF

Veronica 'Blue Sprite' PPAF

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Intrinsic Perennial Gardens, Inc., 10702 Seaman Rd, Hebron, Illinois, 60034, USA.

Delosperma 'Orange Crush' PPAF

Geum 'Cherry Bomb' PPAF

Geum 'Top Shelf Margarita' PPAF

Rudbeckia 'Glitters like Gold' PPAF

Sedum rupestre 'Making Progress' PPAF

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Spiraea 'NCSX1', Double Play[®] Candy Corn[®] spirea pp #28313

Spiraea 'NCSX2', Double Play[®] Doozie[®] spirea ppaf

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Acer saccharum 'SeptDak', September Flare[®] sugar maple

Aesculus glabra 'LavaDak', Lavaburst[®] Ohio buckeye

Betula tianschanica 'EmerDak', Emerald Flare[™] birch

Ulmus davidiana var. *japonica* 'Burgundy Glow', Northern Empress[®] Japanese elm

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Hydrangea arborescens 'NCHA8', Invincibelle Limetta[™] smooth hydrangea

Hydrangea serrata 'SMNHSDD', Tuff Stuff Ah-Ha[™] mountain hydrangea

Rosa 'HORCOGJIL', At Last[®] rose

***Acer saccharum* 'SeptDak', September Flare[®] sugar maple**

Single plant selection originated from a northwest Minnesota native population seed

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lot and was noted for its early intense fall coloration as a 2-year-old seedling. This selection has been fully hardy in USDA hardiness Zone 3b. September Flare® sugar maple is a very hardy sugar maple seedling selection exhibiting heavy-textured tatter-resistant foliage, consistent mid-September into early October showy red-orange fall coloration (Figure 1), and excellent winter hardiness in the Northern Plains to -40°F. This selection is notable for its early annual display of excellent reliable fall color, which is photoperiod initiated and not frost dependent in this northern climate setting. September Flare® sugar maple begins fall coloring before other trees in the landscape which extends the fall color season significantly. Early fall coloring is also indicative of increased winter hardiness because of earlier winter acclimation. Growing in a full sod boulevard condition for its length of evaluation, September Flare® sugar maple will reach a height of 40 ft with a 30-ft canopy spread. Recommended for use as a landscape, public grounds, boulevard (larger), parks, schools, and golf course tree, wherever tree diversity and adaptability to northern conditions are important. September Flare® sugar maple prefers a deep, well-drained, non-droughty soil and will tolerate higher pH levels than the species. Foliage exhibits heavy-textured tatter-resistant foliage with excellent medium green color throughout the summer showing no signs of chlorosis on a soil pH exceeding 8. Grafting studies have shown that early fall coloring is a consistent trait and grafted plants reliably color at the same time each year, mid-September, independently from seasonal temperatures and fall frost events like other fall coloring trees. Availability: pending.



Figure 1. *Acer saccharum* 'SeptDak', September Flare® sugar maple.

***Aesculus glabra* 'LavaDak', Lavaburst® Ohio buckeye**

Single plant selection originating from an unknown seed source. This selection has been fully hardy in USDA hardiness Zone 3b. Growing in full sod condition for its length of evaluation, Lavaburst® Ohio buckeye has reached a height of approximately 25 ft with a 14-ft canopy spread making it ideal for limited space landscape including street boulevards and possibly for use under power lines and near other overhead structures. Mature height may exceed this in other areas of the country but overall it is a smaller, more compact upright Ohio buckeye selection. Lavaburst® Ohio buckeye is a narrow upright northern hardy Ohio buckeye selection with shorter internode stem growth than typical for the species and other *Aesculus* cultivars. This shorter internode stem growth gives Lavaburst® Ohio buckeye the superior compact foliage. Based on grafting trials, Lavaburst® Ohio buckeye has reproduced the atypical shorter stem nodal lengths setting it apart from other cultivar selections. Foliage shows greater resistance to leaf scorch than non-selected buckeyes and maintains a bright green summer color changing to lava orange-red in autumn (Figure 2). Compact growth habit makes this selection ideal for limited space planting sites where a full-sized buckeye is not suitable. Seed production is light as compared to the species and other selected cultivars which is highly desirable as buckeye fruit (seed) are considered to be poisonous and can be messy in a formal landscape. Lavaburst® Ohio buckeye is soil adaptable but prefers a well-

drained, non-droughty soil and tolerates higher pH levels. Propagation is by side or cleft graft onto seedling *Aesculus* rootstocks and will perform best on *A. glabra* in northern climates to insure root hardiness. Availability: pending.



Figure 2. *Aesculus glabra* 'LavaDak', Lavaburst® Ohio buckeye.

***Betula tianshanica* 'EmerDak', Emerald Flare™ birch**

Single plant selection originating from *B. tianshanica*, Tianshan birch, from an unknown seed source and designated as TS95115-2 with the NDSU Woody Plant Improvement Program. The selection TS95115-2 has darker green foliage during the summer months than the other sibling trees from original seed source. This selection has been fully hardy in USDA hardiness Zone 3b. Growing in full sod condition for 17 years and 4 years mulched for its length of evaluation. Emerald Flare™ birch has reached a height of approximately 23 ft with a 12 ft canopy spread growing as a double leader. If trained in the nursery as a single leader, size would be approximately 23 ft tall with an 8 ft canopy spread, making it ideal for limited space or group planting within the landscape. Mature height may exceed this in other areas of the country but overall it is a more narrowly pyramidal (Figure 3), formal birch selection. Emerald Flare™ birch had exhibited outstanding drought tolerance with higher than average resistance to bronze birch borer which is essential for birch species. Foliage is an excellent medium emerald-green color throughout the summer showing no signs of chlorosis on a soil pH exceeding 8. Summer foliage is of high quality without blemishes resulting from birch leafminer or leaf spot. During summer drought conditions, Emerald Flare™ birch exhibits no foliar stress symptoms such as leaf scorch or early leaf drop which is seen on many other birch species. Autumn coloration is an outstanding golden-yellow. Flowers consist of male catkins and female strobiles which do not have significant ornamental value and are not considered messy within the landscape. The bark is slightly exfoliating with darker grey peeling to white with faint orange undertones. Young branches are a reddish brown prior to exfoliating to the white bark and have an ornamental contrast with the exfoliating white bark of the main supporting trunk. Propagation is by side grafting or chip budding onto *B. tianshanica* seedlings or by softwood or semi-hardwood cuttings. Availability: pending.



Figure 3. *Betula tianschanica* 'EmerDak', Emerald Flare™ birch.

***Delosperma* 'Orange Crush' PPAF**

Great orange blooms (Figure 4) on this hardy ice plant with a spreading mound—12 in. wide and only a few inches tall. Foliage is a yellow-edged, green succulent-type.



Figure 4. *Delosperma* 'Orange Crush' PPAF.

***Geum* 'Cherry Bomb' PPAF**

A *Geum* with ruffled, semi-double to single, pink flowers (Figure 5), on dark stems coming out of a basal green mounds; a heavy flowering selection.



Figure 5. *Geum* 'Cherry Bomb' PPAF.

***Geum* 'Top Shelf Margarita' PPAF**

A *Geum* with an abundance of clear yellow flowers (Figure 6) on purple stems. This *Geum* is an early bloomer with some rebloom in July. Foliage is clean and green.



Figure 6. *Geum* 'Top Shelf Margarita' PPAF.

***Hydrangea arborescens* 'NCHA8', Invincibelle Limetta™ smooth hydrangea**

A beautiful rounded dwarf selection with dark green leaves and showy round flower heads that emerge a lush lime green, lighten to soft greenish-white (Figure 7), and then age to green again. The stiff stems and dwarf habit make it an excellent container as well as garden plant. It is very hardy and blooms on new wood so it is a very reliable bloomer.



Figure 7. *Hydrangea arborescens* 'NCHA8', Invincibelle Limetta™ smooth hydrangea.

Developed by Tom Ranney at North Carolina State University. Native. USDA 3, AHS 9, 2.5-3 ft, summer rebloomer.

***Hydrangea serrata* 'SMNHSDD', Tuff Stuff Ah-Ha™ mountain hydrangea**

Dinner plate-sized blooms encircled with large, pastel, very large waterlily-like double flowers of blue or pink (depending upon pH and aluminum availability) (Figure 8) that age to green. It one of the strongest rebloomers we have trialed and it is nearly always in flower during the season. Developed by Megan Mathey of Spring Meadow Nursery by crossing the hardy, reblooming Tuff Stuff™ *H. serrata* 'MAK20' and the dwarf reblooming Let's Dance® Blue Jangles™ *H. macrophylla* 'SMHMTAU' and trialed in Michigan where it has consistently flowered and rebloomed every year. USDA 5, AHS 9, 2-3, summer rebloom.



Figure 8. *Hydrangea serrata* 'SMNHSDD', Tuff Stuff Ah-Ha™ mountain hydrangea.

***Phlox* 'Pink Parasol' PPAF**

Selected for its display of vibrant violet-pink flowers, vigor, hardiness and uniformity. The $\frac{3}{4}$ in. wide flowers are produced for 3 to 4 weeks, commencing in late April in northern Illinois (USDA Zone 5). At peak bloom, the plants are covered 90 to 100% with flowers (Figure 9). Two-year-old plants measured 12 in. wide and 5 in. tall at peak bloom, and 5-year-old plants were 21 in. wide and 7 in. tall at peak bloom. more mounded growers than the similar but more spreading and layering moss phlox, *P. subulata*. Best cultivated in full sun and on a well-drained soil.

Easy to propagate from cuttings taken after the plant finishes flowering. Likely hardy to USDA Zones 4-8. Developed at Chicago Botanic Garden from a cross made in 2006 between a putative *P. borealis* (we suspect this to be *P. subulata*) and *P. bifida*.



Figure 9. *Phlox* 'Pink Parasol' PPAF.

***Phlox* 'Running With Scissors' PPAF**

The 1 in. wide, light to medium violet flowers are produced for 4 to 6 weeks in spring starting in mid to late April in northern Illinois (USDA Zone 5). Close up, you can appreciate the flowers' cleft petals and conspicuous purple striae adjacent to the floral tube. A bonus is the faint but pleasant sweet hay fragrance. At peak bloom, the plants are covered 90% to 100% with flowers (Figure 10).



Figure 10. *Phlox* 'Running With Scissors' PPAF.

Two-year-old plants were 20 in. wide and 7 in. tall at peak bloom, and 4-year-old plants were 38 in. wide and 7 in. tall at peak bloom. A mounded grower that continues to spread over time. Best cultivated in full sun and on a well-drained soil.

Easy to propagate from cuttings taken after the plant finishes flowering. Likely hardy to USDA Zones 5-8. From a cross made in 2008 between *P.* 'McDaniel's Cushion' and *P. bifida*.

***Rosa* 'HORCOGJIL', At Last® rose**

Finally, a fragrant, modern rose! At Last® rose combines all the romance of a fragrant, fully-petalled English rose with the no-nonsense practicality of a healthy landscape rose (Figure 11). It provides a non-stop display of large, sweetly perfumed sunset-orange blossoms from late spring through frost. Handsome, glossy foliage and a vigorous, rounded habit make it ideal for use in the landscape or the flower garden. Hybridized by the late Colin Horner of Stansted Mountfitchet, Essex, UK. It originated from a cross-pollination of a proprietary selection of (*R. × hybrida* 'Laura Ford' times 'Goldbusch'), as the female with *R. × hybrida* 'Horjilly', a non-patented selections as the male parent. This consumer favorite won the 2016 Shrub Madness Championship. USDA 5, AHS 9, 2-3 ft, summer rebloomer.



Figure 11. *Rosa* 'HORCOGJIL', At Last® rose.

***Rudbeckia* ‘Glitters like Gold’ PPAF**

A *Rudbeckia* with round hairy foliage and resistant to disease. Plants are 3 ft. plus and begin to flowering in mid-July with rich golden 3½ in. blooms (Figure 12).



Figure 12. *Rudbeckia* ‘Glitters like Gold’ PPAF.

***Sedum rupestre* ‘Making Progress’ PPAF**

A unique sedum with red foliage, fall to spring (Figure 13).



Figure 13. *Sedum rupestre* ‘Making Progress’ PPAF.

***Spiraea* ‘NCSX1’, Double Play® Candy Corn® spirea pp #28313**

You have to see it to believe it—candy-apple-red foliage starts the show in spring. As the season progresses, the foliage transforms to pineapple yellow (Figure 14A). Dark purple blooms appear in late spring (Figure 14B), making this the most eye-popping colorful Double Play® spirea yet. A deciduous shrub with a height of 18-24 in. and a spread of 18-30 in.



Figure 14. A: candy-apple-red foliage; B: dark purple blooms.

***Spiraea* 'NCSX2', Double Play® Doozie® spirea ppaf**

Double Play® Doozie® spirea is a ground-breaking non-invasive spirea. Its lack of seed also means it is a perpetual bloomer, putting all of its energy into creating wave after wave of red-pink flowers from early summer through frost (Figure 15). No deadheading required. Naturally grows as a neat mound.



Figure 15. *Spiraea* 'NCSX2', Double Play® Doozie® spirea ppaf.

***Ulmus davidiana* var. *japonica* 'Burgundy Glow', Northern Empress® Japanese elm**

Single plant selection originating from within a Harbin, China seed source grown for over 30 years at the NDSU Dale E. Herman Research Arboretum. This selection has been fully hardy in USDA hardiness Zone 4. Based on regional experience with the species and seed origin should be fully hardy throughout Zone 3 and possibly into Zone 2b of the Agriculture Canada hardiness zone map. Growing in a full sod condition for its length of evaluation, Northern Empress® Japanese elm has reached a height of approximately 26 ft with a 20-ft canopy spread making it ideal for limited space landscapes and possibly for use under power lines and near other overhead structures. Mature height may exceed this in other areas of the country but overall it is a smaller, more compact elm selection. Based on grafting trials, Northern Empress® Japanese elm has reproduced reduced growth with shorter internodes than the species. Structural branching is open and widely spaced which eliminates the narrow branch angle problems associated with several of the recently selected and available hybrid elm cultivars. Branch terminals are not excessively twiggy and are not prone to twig drop. Mature plant form is a rounded crown. Foliage is an excellent medium green color throughout the summer showing no signs of chlorosis on a soil pH exceeding 8. Black leaf spot of elm is present in the NDSU elm collection and only minimally affects Northern Empress® Japanese elm if at all while other cultivars may be severely affected. Japanese elm has an inherent resistance to elm leaf beetles and Dutch elm disease (DED). Seed production has been very light and is not considered to be a negative maintenance issue. Autumn coloration on Northern Empress® Japanese elm occurs later than other Japanese elms in the collection by 1 to 2 weeks and highlights one of its standout attributes. Rather than the standard yellow fall coloration of most elm species including Japanese elm, Northern Empress® Japanese elm gradually progresses from an apricot-orange color to an attractive burgundy-red, which is quite striking at its peak (Figure 16). This is only the second elm cultivar that has fall coloration other than yellow. Frontier Elm [*U. carpinifolia* × *U. parvifolia*] 'Frontier'] has similar fall color to Northern Empress® Japanese elm but is not reliably hardy in Zone 4 and has more of an upright-pyramidal form. Propagation is by tissue culture, side grafting or chip budding onto *Ulmus pumila* rootstocks, and possibly by semi-hardwood cuttings. Availability: Carlton Plants LLC, AgriForest Bio-Technologies Ltd.



Figure 16. *Ulmus davidiana* var. *japonica* 'Burgundy Glow', Northern Empress® Japanese elm.

***Veronica* 'Blue Sprite' PPAF**

This compact, durable and showy selection made from a relatively unknown *Veronica* species has proven itself over 7 years of trials. The brilliant violet flowers are densely born on compact spikes only 4-5 in. tall. Blooming commences in late May to early June, and continues for upwards of 6 weeks, which is long for such a veronica. The plants form low, uniform dense clumps that slowly spread over time (Figure 17). Three-year-old plants measured 17 in. wide and less than 2 in. tall out of bloom. The foliage has been clean and disease-free through both wet and dry summers. Best cultivated in full sun and on a well-drained soil.

Easy to propagate from cuttings taken after the plant finishes flowering or by division in spring or fall. Likely hardy to USDA Zones 4–8. Selected in 2009 from open-pollinated seed collected from *V. allionii* in 2007.



Figure 17. *Veronica* 'Blue Sprite' PPAF.