

Chicagoland Grows,® Inc.

Plant Release Bulletin #43

NEW FOR 2017–2018

Chicagoland Grows®, Inc., presents five new spring phlox selections

Building on the success of the previous phlox introductions developed at Chicago Botanic Garden, the Chicagoland Grows® plant introduction program is pleased to announce that five more hybrid phlox selections are now in nursery production trials. These spring-blooming moss phlox feature novel flower colors and shapes, compact habits, and excellent vigor and hardiness. Watch for their availability, or inquire about stock for your own trials.

chicagolandgrows.org



Phlox 'Running with Scissors' PPAF





Phlox 'Early Bird' PPAF

As its name suggests, *Phlox* 'Early Bird' was selected primarily for its early bloom season, which commences in mid-April and continues for four weeks until mid-May in northern Illinois (USDA Zone 5). Test plants were 100 percent covered with flowers at peak bloom in late April to early May. 'Early Bird' reached peak bloom sooner than any other commercial *Phlox* we have trialed, including the Early Spring™ *Phlox* series. But there's more to this selection. The stunning flowers are both bold and beautiful, measuring nearly 1 inch wide, and colored a deep carmine-pink with prominent dark raspberry-red striae. It is comparable to both *Phlox subulata* 'Crimson Beauty' and 'Scarlet Flame', but with much larger flowers and earlier blooming. Trial plants have been quite vigorous and uniform, growing to 36 inches wide by 3 inches tall after three years. The evergreen foliage has turned a bronze-red color over winter, adding another season of interest. 'Early Bird' is hardy to USDA Zones 4 to 8; it was selected in 2012 as an open-pollinated seedling. Its parents are uncertain, but 'Early Bird' appears to be a *Phlox subulata* hybrid.



Phlox 'Pink Parasol' PPAF

Selected primarily for its display of vibrant violet-pink flowers, this hybrid moss phlox has also proven to be exceptionally vigorous, hardy, and uniform growing. The ¾-inch-wide flowers are produced for three to four weeks, commencing in late April and continuing into late May in northern Illinois (USDA Zone 5). At peak bloom, the plants are 90 to 100 percent covered with flowers. Close up, you can also appreciate the flowers' white eyes and blunt petal tips, compliments of its *Phlox bifida* parent. Two-year-old plants measured 12 inches wide and 5 inches tall at peak bloom, and five-year-old plants measured 21 inches wide and 7 inches tall at peak bloom. These are more mounded growers than the similar, but more spreading and layering moss phlox, *Phlox subulata*. Older plants may become somewhat woody in the center. These respond favorably to light pruning immediately after flowering is completed. 'Pink Parasol' is hardy to USDA Zones 4 to 8. It was selected from a 2006 cross between a putative *Phlox borealis* and *Phlox bifida*.



Phlox 'Running With Scissors' PPAF

'Running With Scissors' has proven to be a super-charged moss phlox in terms of flower power, vigor, and durability. The 1-inch-wide, light-to-medium violet flowers, large for a moss phlox, are produced for four to six weeks in spring, commencing in mid- to late April in northern Illinois (USDA Zone 5). A light repeat bloom in autumn has been observed for some years. At peak bloom, the plants are 90 to 100 percent covered with flowers. 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. Two-year-old plants measured 20 inches wide and 7 inches tall at peak bloom, and four-year-old plants were 38 inches wide and 7 inches tall at peak bloom. Over summer, the lush, dark green foliage reminds us of rosemary. This phlox was selected from a 2008 cross between *Phlox* 'McDaniel's Cushion' and *Phlox bifida*.

Phlox 'Plumtastic' PPAF and Phlox 'Strawberries and Cream' PPAF

Phlox 'Plumtastic' and the related 'Strawberries and Cream' take moss phlox breeding in a completely new direction. These hybrids produce novel flower colors not found in *Phlox subulata*, as well as flowers that deepen in color as they age, unlike *P. subulata*, whose flowers can fade over time. Reliably lower-growing and possessing possibly higher pH and salt tolerance than *P. subulata* add to their novelty. The key was crossing *Phlox subulata* with the western species *Phlox kelseyi*, which is a deciduous, mat-forming species found in high salinity and high pH, seasonally wet habitats in Idaho and Montana. This is a tough species for durable hybrids. While *P. kelseyi* is temperamental in cultivation in the eastern and midwestern United States, it has imparted novel traits in these two hybrids.



Phlox 'Plumtastic' PPAF

'Plumtastic' blooms for four weeks, commencing in late April to early May in northern Illinois (USDA Zone 5). Test plants were 90 percent covered with flowers at peak bloom in mid-May. The $\frac{3}{4}$ -inch-wide flowers are a light violet pink with a distinct white eye upon opening, but age to a medium to dark rose-violet, without any eye remaining. The petals are also very broad, resulting in full flowers. The creeping, slowly spreading plants are lower and denser than most moss *Phlox*, growing to 2½ inches tall by 16 inches wide after three years. The plant habit takes after the *Phlox kelseyi* parent. Small, tightly clustered leaves have remained evergreen every winter, and the plants have exhibited the least amount of winter damage of practically all *Phlox* in our breeding program to date. 'Plumtastic' is likely hardy to USDA Zones 4 to 8. This plant was selected in 2012 from a 2010 cross of *Phlox subulata* and *Phlox kelseyi*.



Phlox 'Strawberries and Cream' PPAF

Like 'Plumtastic', 'Strawberries and Cream' was selected for flowers that darken in color with age, yet are attractive in all color phases. 'Strawberries and Cream' blooms for four weeks, commencing in late April in northern Illinois (USDA Zone 5). Test plants were 90 percent covered with flowers at peak bloom in early to mid-May. The $\frac{3}{4}$ -inch-wide flowers are nearly white with a light violet-pink blush upon opening, aging to medium and even dark pink-violet. The broad petals make for full flowers, adding to the display. This is a slightly larger and more vigorous grower than 'Plumtastic', with three-year-old plants growing to 4 inches tall in their centers, 2½ inches tall around their edges, and to 18 inches wide. Winter survival has been excellent, with minimal damage. Overly wet or compacted summer soils can lead to foliage loss for this plant, which is hardy to USDA Zones 4 to 8. 'Strawberries and Cream' was selected in 2012 from a 2010 cross of *Phlox subulata* and *Phlox kelseyi*.

General Name

Phlox, hybrid Phlox

Family

Polemoniaceae (phlox family)

Origin

All five of these *Phlox* selections were developed by Dr. Jim Ault at the Chicago Botanic Garden. The selections were developed from crossing *Phlox bifida*, *Phlox borealis* (putative, may be *P. subulata*), *Phlox kelseyi*, and *Phlox subulata*. All the parent plants and selections were grown in-ground at the Chicago Botanic Garden (USDA Zone 5b) during the breeding and selection process.

Previous Phlox Introductions

Phlox 'Forever Pink', *Phlox* × *procumbens* 'Pink Profusion', and *Phlox* 'Violet Pinwheels', were also all developed at the Chicago Botanic Garden.

Hardiness

All the selections are likely cold-hardy to USDA Hardiness Zones 4 to 7 and heat-tolerant to AHS Zones 4 to 7. There can be significant die-back of some of the selections in severe Zone 5 winters without snow cover, but the plants usually recover the following spring.

Bloom Season

Selection-dependent, these new phlox can initiate bloom in mid- to late April, and continue blooming for three to five weeks in northern Illinois (USDA Zone 5b).

Plant Habits

All of these selections are low-growing perennials with wiry stems and (mostly) evergreen, needle-like foliage. The plants can be clump-forming to spreading mats. The selections vary in height, width, and foliage density, ancestry-dependent. *Phlox bifida* and hybrids tend to be larger, more open, and more clump-forming than spreading. *Phlox subulata* and hybrids can be either open or dense, and generally broad-spreading. *Phlox kelseyi* is very low growing and very dense, and will slowly spread over time if under optimal conditions.

Growth Rates and Sizes

Their growth rates and sizes are listed under the individual selections. As described under habits, their sizes and growth rates will vary by their ancestry.

Ornamental Characteristics and Landscape Value

The flowers of the moss *Phlox* and related selections provide a conspicuous splash of color in the garden from early to midspring, when relatively few other perennials are in bloom. Their fine summer foliage and low habits can provide a quiet foliar backdrop to later-blooming perennials. The clump-forming selections can be planted individually or massed for a more conspicuous floral display. The mat-forming selections can be utilized as ground covers. Use these selections in the rock garden, on slopes, or in the front of well-drained perennial borders.

Culture

All of the moss *Phlox* and related selections prefer full sun, well-drained soils, and adequate moisture. *Phlox subulata* is erroneously listed as a drought-tolerant plant when in reality it is native to relatively high-rainfall areas of the eastern United States, and so is adapted to fairly consistent moisture availability, as is also *Phlox bifida*. Superior soil drainage is paramount. Selections that become woody in the center can be lightly pruned immediately after flowering to encourage better density. Plants can winter-burn with inadequate snow cover, but generally recover in the spring. Avoid covering the stems with mulch, but plants on sandy soils can be mulched around them to preserve moisture.

Pest and Disease Problems

All of these selections exhibit excellent disease resistance. *Phlox subulata* selections may be bothered by powdery mildew in situations of excess moisture, relative humidity, and inadequate air circulation, but this has not yet been observed on any of our selections. These are not bothered by insects, and are rarely if ever browsed by rabbits or deer.

Propagation

All of these selections can be readily propagated from still-pliable shoot tip cuttings 1 to 2 inches long. Take the cuttings as the new vegetative growth is elongating immediately after blooming, which can be from mid-May to about mid-June in northern Illinois (USDA Zone 5b). It is also possible to root cuttings in September to October from late-season growth. The key to rooting cuttings is cool temperatures; daytime temperatures above 80 degrees Fahrenheit will inhibit rooting. No bottom heat is necessary. Treat cuttings with 1,250 ppm KIBA for a standard 5 second dip. Use a deep cell or pot for rooting to ensure the bottom of the cutting has adequate drainage around it. The earlier the cuttings can be rooted in the propagation year, the greater the overwintering plant size and bloom display the next year.

Chicagoland Grows® is a nonprofit corporation of the Chicago Botanic Garden, the Morton Arboretum, and the Ornamental Growers Association of Northern Illinois (OGA).

The Chicagoland Grows® Plant Introduction Program is dedicated to the evaluation, selection, production, and marketing of recommended and new plant cultivars. Plants selected for the program have proven to be adaptable to the Midwest and are made available to the commercial and retail landscape industry through an international network of growers and propagators.

For more information about Chicagoland Grows®, contact the Plant Introduction Department, Chicago Botanic Garden, 1000 Lake Cook Road, Glencoe, IL 60022, (847) 835-8301, or visit chicagolandgrows.org.

Cover photos: *Phlox* 'Running with Scissors' PPAF