Phlox offers many ornamental options. This article offers basic information about these plants to help educate beginning gardeners.

Figure 1. Moss phlox (Phlox subulata). Mandy L. Smith, Penn State

The flowers of the Phlox genus could not be more conspicuous. While in bloom, some species are so thick with blossoms that it is difficult to see other parts of the plant. Undoubtedly, this is the reason for their immense popularity with gardeners. While the growth habits, bloom times, light requirements, and distribution of nearly 70 different species vary greatly, the floral structure and reproductive strategies of the flowers are much the same.

Phlox is in the Polemoniaceae family. Five petal-like lobes are its signature feature. The corolla of phlox consists of a long, narrow tube where the nectar resides, then these lobes open out at right angles into a flat-faced surface. The shape of this type of flower is called a salverform, like the elegant silver serving tray known as a ‘salver’ found in the most formal dining room settings, a plate balanced upon a stem. The salverform shape serves insect pollinators who have a long proboscis, such as many members of Lepidoptera, butterflies, and moths, or hummingbirds with their lengthy tongues, critters who can reach deep down into the tube. The blooms of many species exude a pleasant fragrance.

While this morphology of phlox is consistent throughout the genus, outward characteristics between them are rich with variation. The five petal-like lobes might have tips that are notched or pointed, their edges ridged or ruffled. The width of a petal lobe could be narrow and spoke-like or they can unfurl and overlap upon one another. Colors of uncultivated flowers tend to favor pastels: pink, rose, lilac, lavender, shades of baby blue, or occasionally white. Aside from one species native to both Alaska and Siberia, phlox is exclusively found across North America in a myriad of habitats, from deserts to wetlands and tall prairies to the rocky crevices on the sides of cliffs.

Four species of phlox are presented here as a starting point for gardeners beginning to explore the genus. These species were selected because they are native to the commonwealth and the Northeast, but also because of their popularity and to some extent, the variety of cultivars that are available.

Figure 2. Moss phlox (Phlox subulata) makes a colorful groundcover, pictured here at Mt. Cuba Center. Mandy L. Smith, Penn State

Dry, rocky, and sandy conditions suit Phlox subulata, also known as moss phlox and moss pink, a low growing, dense
matted groundcover with needle-like leaves frequently used in landscaping. It is sometimes called creeping phlox. So as not to confuse it with *P. stolonifera* discussed below, note its Latin name. The height of moss phlox only reaches about 6 inches and slowly spreads to about 2 or 3 feet. Moss phlox is an early bloomer, flowering from about April to May. Blossoms are short-lived but intense. In general, phlox should be deadheaded to encourage more bloom, and *P. subulata*, in particular, can be cut back with a mower set at a high level. It loves full sun but also grows in light shade and will tolerate poor soil and drought conditions once established. It grows in USDA Plant Hardiness Zones 3-9. 'Emerald Blue' is a notable cultivar, along with 'Amazing Grace,' a white flower that flaunts a lilac eye.

Another groundcover is *P. stolonifera*. Flowers grow above its foliage with heights of 6 to 12 inches, but the leaves only reach about 3 inches above the soil. Oval leaves distinguish it from the pointed and elliptical-shaped leaves of *P. subulata* and other species. It is native to the Appalachian Mountains and less tolerant of cold weather, rated for USDA Plant Hardiness Zones 5-9. It is also an early spring bloomer. *P. stolonifera* appreciates a tad of sun, especially in the morning, but suffers in strong southern light. Like *P. subulata*, it is also commonly called creeping phlox, but *P. stolonifera* spreads through runners or stolons, weaving its way among other plants. A colony can spread about 2 to 3 feet. 'Sherwood Purple' was rated as a top cultivar at a recent Mt. Cuba Center trial, demonstrating exceptional vigor and the growth of dense foliage.

*P. divaricata*, commonly called woodland phlox, wild blue phlox, and wild sweet William, tolerates deep shade. Blooming from April to June it reaches 12 to 15 inches, or ankle height, carpeting the edges of deciduous woods and stream margins with a spreading habit. New shoots root at its nodes. Its blooms are short-lived, but cutting back its flowers will encourage a second growth. Its fragrance is often described as a mixture of clove and vanilla. Leaves are narrow and lancelike. As with many species of phlox, it will survive some deer browsing, but it is a favorite food for rabbits. *P. divaricata* thrives best in partial sun to dappled shade in USDA Plant Hardiness Zones 3-8. *P. divaricata* 'Blue Moon' was selected as the 2022 Plant of the Year by The Garden Club of America, with larger petals and longer bloom than the straight species.

The most popular phlox among gardeners is *P. paniculata*, called garden phlox, tall phlox, summer phlox, and fall phlox. Beginning in mid-summer, its blooms can last well into September if the summer heat is not too extreme and spent flowers are regularly removed. Rather than spreading, it is an upright tap-rooted plant that grows in clumps with an average height from 2 to 4 feet, though several cultivars grow higher. Its native range includes New York west to Iowa, stretching as
Phlox, as a genus, is susceptible to some degree of powdery mildew, especially *P. paniculata*. Many of today’s breeders of *P. paniculata* are focused on developing plants that are disease-resistant, especially against mildew. Cultural practices, like providing space for air circulation when planting, are also important. 'David' was one of the first mildew-resistant selections marketed more than 20 years ago. Cultivated from a wild plant, this white flowered selection is still popular today. 'Jeana,' the Perennial Plant Association’s plant of the year for 2024, is also disease resistant.

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