



PENSTEMONS ARE FOR GREAT BASIN GARDENS

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Penstemons are flowering perennials much loved by the gardening public. Gardeners appreciate their diversity of flower colors that are at peak bloom in June and July, their many shapes and sizes, and their attractiveness to hummingbirds and other native pollinators. You may even have planted some in your own garden. Most people don't realize there are about 280 species of penstemon, all native to North America. Even fewer know that 51 of those grow wild right here in Nevada.

The form of penstemon species ranges from small mat-forming plants to 5-foot-tall majestic spires. You can recognize a penstemon flower by its tubular shape that flares open forming two lips. The upper lip has two lobes, and the lower lip has three. What sets penstemon flowers apart from other tube-shaped flowers is the tongue—the infertile pollen sac stem that protrudes from the throat. In some penstemon species, this tongue is fuzzy or hairy, inspiring its common name—beardtongue.

WHY PLANT PENSTEMONS?

Penstemon flowers come in many different colors. You may have seen the tall spires of fragrant baby pink to white flowers with pink guidelines sported by Palmer's penstemon (*Penstemon palmeri*) (Fig. 1). It is found in a number of native plant gardens in Washoe County. It grows wild in dry lower elevation areas, especially in the southern part of the state. A favorite of many gardeners is firecracker penstemon (*Penstemon eatonii*) (Fig. 2), so named for its bright red flowers that gently dangle along one side of its stems. It is especially attractive to hummingbirds. This penstemon is widely adapted to elevations from 3,000 feet up to 10,000 feet. Many penstemons native to dry areas have striking blue or purple flowers. A good example is the low-growing species, bunchleaf penstemon (*Penstemon heterophyllus*) (Fig. 3). This species grows to only 18 inches tall and blooms from April through July. It is very heat- and drought-tolerant and a great choice for a rock garden. For a real showstopper, you might consider desert penstemon (*Penstemon pseudospectabilis*) (Fig. 4). With its 4-foot-tall stems loaded with magenta-pink flowers, this plant begins blooming in April in some parts of the state and will continue blooming through June. With a little extra irrigation, it may even rebloom for season-long color. Hot rock penstemon (*Penstemon deustus*) (Fig. 5) is one of the few white-flowered penstemons in the horticultural trade. It produces a profusion of small white flowers, sometimes with red guidelines in the throat, giving a slight pinkish cast. It blooms from May until July and grows from 4 inches to 16 inches tall. It does well in poor gravelly soils and is perfect as a rock garden accent plant.

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Penstemons are native to a variety of habitats. The conditions prevalent within the native habitat of a species give clues about its cultural requirements in a garden setting. Some species will thrive only under a narrow range of conditions based on their unique native habitats, while others are more broadly adaptable to a range of conditions. Davidson's penstemon (*Penstemon davidsonii*) (Fig. 6) is a low-growing plant that forms a dense clump of creeping woody stems with evergreen foliage. It is found at elevations from 5,600 feet to 12,000 feet. Because it is adapted to areas that are snow-covered in winter, it benefits from protection from winter sun in areas without consistent snow cover, to prevent burning of the foliage. It prefers full sun during the growing season but tolerates part shade, especially during the early morning hours. Lovely lavender-blue flowers that are large for its less than 10-inch erect stems make this species a good choice for rock gardens in northern lower elevation areas and in our high-desert climate.

Pineleaf penstemon (*Penstemon pinifolius*) (Fig. 7) is a shrubby evergreen found in gravelly soils on rocky slopes at elevations from 6,000 feet to 8,500 feet in the desert southwestern U.S. Despite its southern native range, it can be successfully grown in northern climates if placed among heat-collecting rocks in a south-facing exposure. The leaves of pineleaf penstemon, as the name suggests, are tiny and needle-like, and the scarlet to orange-red flowers are small and narrow but densely spaced along 15-inch stems. It is a good example of a species that performs best in soils that provide excellent drainage. Beardlip penstemon (*Penstemon barbatus*) (Fig. 8) is similarly native to dry mountainous habitats at elevations from 4,450 feet to 8,700 feet. Unlike most western U.S. penstemons that are short-lived in the higher-nutrient and wetter soils typical of many garden settings, beardlip penstemon is broadly adaptable to such conditions, as long as it gets full sun and excellent soil drainage. It blooms best in full sun but also tolerates part shade, especially in western climates where precipitation is sparse and the sun is intense. The flowers of beardlip penstemon are shaped like a shark's head and have long-lasting scarlet-colored blooms on 2-foot-tall to 4-foot tall stalks.

Rocky Mountain penstemon (*Penstemon strictus*) (Fig. 9) has a broad native range, growing at higher elevations between 6,700 feet and 10,750 feet in the Rocky Mountains, and in Utah, Wyoming, New Mexico and Arizona. Although many penstemon species have a shortened lifespan in soils that



Palmer's penstemon



firecracker penstemon



bunchleaf penstemon



desert penstemon



hot rock penstemon

hold too much water, Rocky Mountain penstemon will tolerate these conditions but may be floppy and less brightly colored than plants grown in well-drained soil. In contrast, Sunset Crater penstemon (*Penstemon clutei*) (Fig. 10) is narrowly endemic to the volcanic soils in Sunset Crater at 7,000 feet near Flagstaff, Arizona. Despite its very narrow native range, Sunset Crater penstemon is broadly adaptable to a variety of soil types, easy to grow and long-lived. Like other penstemons, however, it will look its best in full sun and well-drained infertile soil.

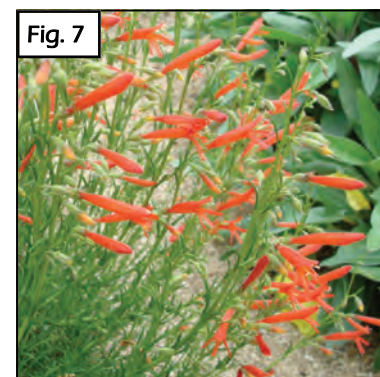
Penstemons are easy to care for. This is especially true if you select species native to our region. Most penstemons love full sun and will do especially well on the south or west side of your home. They thrive in sandy, rocky soils that drain quickly. If your garden soil is clayey or shallow, you may need to create a raised bed of sand or gravel to keep the tender crown (base of the plant) out of standing water. The best soil amendment for penstemons is high-quality aged compost applied sparingly; or better yet use nothing at all, as most penstemons prefer infertile soils. Hybrid varieties may benefit from a light application in spring of a slow-release low-nitrogen fertilizer to support their long bloom period. Pruning your penstemons is not necessary, but cutting back the stems after flowering may encourage repeat blooms and extend the life of your plants.

Most penstemons grow from a basal rosette of leaves and bloom in their second year after planting. Some penstemons are short-lived, lasting only two to three years, and others may live four years or more. Penstemons will self-sow, so be prepared for them to move around your garden. If your style of gardening is neat and tidy, deadhead the flowers before they go to seed. Many penstemon species also readily hybridize with one another. When you plant more than one species in close proximity, don't be surprised to find sports that don't look exactly like what you originally planted. This is part of the joy of gardening with native plants.

Growing penstemons may conserve landscape water. Most native penstemons are drought-tolerant, so be careful not to overwater. Drip irrigation is best. Overwatering, especially in heavy soils, puts too much water around the base of the plant and may promote crown rot. You can protect the sensitive crowns by using a rock or gravel mulch or by pulling organic mulch a few inches away from the stems. Hybrid penstemon varieties may require more frequent watering and will benefit from



Davidson's penstemon



pineleaf penstemon



beardlip penstemon



Rocky Mountain penstemon



Sunset Crater penstemon

filtered shade. Once the bloom period is over, cut back on watering frequency for all penstemons.

Penstemon gardens represent a low fire hazard. Herbaceous plants, such as penstemons, are the best choice for gardens within 30 feet of homes or other structures. They have a high moisture content and die back or are cut back during late summer and fall when fire season is at its peak. You can even plant penstemons within 5 feet of your home if you irrigate them regularly and use a noncombustible mulch, such as rock or gravel.

Penstemons attract pollinators. Penstemon flowers are built for pollinators. Red-flowered penstemons, such as firecracker penstemon, have deep throats and are irresistible to hummingbirds, which enjoy sipping nectar from the base of the flower through their long beaks. Bumblebees are attracted to the larger-flowered varieties, such as Palmer's penstemon. Even butterflies will visit your garden to sample the nectar of penstemons. If you plant native penstemons, they will attract a variety of native pollinators. Encouraging native pollinators is good for ecosystem diversity and supports local fruit and vegetable production, which relies on pollination for good harvests.

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