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perennial solutions



Astilbe chinensis 'Visions'

This deer-resistant variety also attracts hummingbirds and can be utilized in your marketing programs.

By Paul Pilon

stilbes are very popular shade and woodland garden perennials. They form beautiful mounds of fern-like foliage bearing tiny flowers on



All photos courtesy of Sawyer Nurseries.

erect to arching, plume-like flower panicles that rise above the foliage on slender upright stems. Astilbe chinensis 'Visions' is a showy cultivar that forms compact foliage mounds with green to bronzegreen glossy leaves reaching 9-12 inches high. Flowering occurs in early summer, forming pyramidalshaped 14- to 16-inch-tall plumes full of small, fragrant, raspberryred flowers. Astilbes are often used for cut flowers, as container items, in mass plantings or small groups, as border plants and as groundcovers in shade gardens.

'Visions' can be easily produced in average, medium-wet, welldrained soils across USDA Hardiness Zones 4-9 and AHS Heat Zones 8-2. Unlike most astilbe species that require heavy shade, Astilbe chinensis prefers partial shade and can tolerate more sun and drought-like conditions. Although they can tolerate more water stress than most astilbes, Astilbe chinensis should not be allowed to dry out, as leaf scorch is likely to occur. These slowspreading, rhizomatous plants belong to the Saxifragaceae family, which contains several commonly grown perennials such as berginia, heuchera, heucherella, rodgersia, saxifrage and tiarella.

PROPAGATION

Astilbe 'Visions' is propagated vegetatively by division. Divisions of astilbe are best done during the spring or fall. For quart production, a crown consisting of 1-2 eyes, or shoots, is commonly used. For larger containers, such as a 1-gal., divisions containing 2-3 eyes are commonly used. In most cases, container growers do not propagate astilbe cultivars; rather, they purchase bareroot divisions or large plug liners from growers who specialize in astilbe propagation.

'Visions' is not a patented cultivar and can be propagated by any grower. There are two fairly new introductions with the Visions name, 'Vision in Pink' and 'Vision in Red'; these are patented cultivars. Growers should note that unlicensed propagation of these cultivars is prohibited.

PRODUCTION

'Visions' is available to the marketplace as bare-root plants or large plug liners. They are commonly planted in quart or 1gal. containers immediately after they have been received. Growers commonly plant them in barkand peat-based growing mixes, which have good drainage and a fair amount of water-holding ability. When planting, the woody crown should be placed in the center of the pot with the crown slightly covered (no more than $\frac{1}{2}$ inch) or just exposed after they are thoroughly watered in. Planting the crown too deep will lead to crop variability and **•**

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losses. After planting, I would recommend drenching with a broad spectrum fungicide such as Banrot (Scotts Co.) or a combination of Subdue Maxx (Syngenta Professional Products) and Cleary's 3336 (Cleary Chemical). Astilbes should be kept evenly moist throughout production. Water stress is likely to cause the leaves to become scorched, often rendering the plant unsalable. I recommend watering thoroughly when irrigation is required and allowing the substrate to dry slightly between waterings.

During production, the pH or acidity of the media should be maintained between 5.8 and 6.2. Feeding is generally not necessary during the first few weeks of



production. When actively growing, astilbes are moderate feeders requiring a controlled-release fertilizer incorporated at a rate equivalent to 1 lb. of nitrogen per yard of growing medium or 50-100 ppm nitrate delivered under a constant liquid fertilizer program. Astilbes are sensitive to high salts and may become scorched and have damaged roots if the soluble salt levels are allowed to build up. Monitor the soluble salt levels routinely and leach them out with clear water if the EC rises above 2.0 using the 2:1 extraction method.

Astilbes can be successfully forced into bloom either by planting them in the late summer and over-wintering the established plant in the finished container or by planting an over-wintered bareroot division in the early spring. Astilbes require cold in order for them to produce a bloom; at least 10 weeks of cold at 35-45° F should be sufficient. 'Visions' are usually grown at an average temperature of 65° F. At this temperature they will reach a finished size in 6-8 weeks and will be flowering in about 12 weeks.



While forcing during naturally short days, it is beneficial to provide long days using night interruption lighting. Long-day conditions will decrease the time needed to reach flowering.

'Visions' does not require height control if it is grown with adequate spacing between the plants. When grown under high plant densities, its plant height can be controlled by applying B-Nine (Chemtura Corp.) at 2,500 ppm or Sumagic (Valent USA) at 5 ppm to the foliage as the plant canopy begins to enclose or once the inflorescences begin to elongate. Two applications applied seven days apart will provide an adequate reduction of the flowering stalk without altering the overall appearance of the plant. These are considered Northern rates and should be adjusted accordingly in other parts of the country.

Over-wintering astilbes is relatively simple. In the late fall, trim the plants back to 2 inches above the top of the container. Once they are trimmed, group the pots together inside a coldframe, greenhouse or outdoor production bed. In colder zones, I would also recommend covering them with a frost-protective fabric during the winter months. During this season, if there are periods where the temperatures remain above freezing, open the coldframe doors or provide ventilation during the day to keep the temperatures inside as cool as possible. Provide adequate ventilation any time the outdoor temperatures are above 40° F.

PESTS AND DISEASES

Astilbes are not susceptible to many insect pests. Aphids, spider mites and whiteflies are the most prevalent pests. None of these pests require preventative control strategies. Growers should have routine scouting programs to detect their presence early and to determine if and when control strategies are necessary. There are only a couple of diseases associated with the production of astilbes. Crown rot caused by Fusarium or Pythium is likely to occur when crops are over watered or

if the growing medium has insufficient drainage.

AVAILABILITY

Bareroot divisions of astilbe 'Visions' are readily available from a number of domestic and European producers. Large plugs are more difficult to find but are often available from a few perennial plug suppliers. **GPN**

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