



By Paul Pilon

Physostegia virginiana 'Crystal Peak White'

Physostegia virginiana, with its upright habit, is primarily used as a backdrop in landscapes or for late-season production in large container sizes. However, thanks to the breeding efforts of Benary Seed and its introduction of 'Crystal Peak White' to the industry, physostegia now offers great versatility to commercial growers and landscape settings.

'Crystal Peak White' is a first-year-flowering perennial with a compact, well-branched habit that produces numerous flower spikes that last throughout the summer. The most notable difference between 'Crystal Peak White' and other cultivars is its compact size; it reaches only 16 inches in full bloom; many cultivars commonly grow to at least 36 inches. It also offers bright-white flower spikes that do not fade or brown as they age, as

This first-year-flowering perennial produces numerous bright white spikes that are sure to get attention in the garden

many of the existing cultivars do. Based on its attributes and performance, physostegia 'Crystal Peak White' received the prestigious Fleuroselect

Gold Medal this year, awarded for excellence in breeding and beauty.

'Crystal Peak White' performs well across a wide portion of the United States, throughout USDA Hardiness Zones 2 to 9 and AHS Heat Zones 4 to 8. It prefers full sun, but it performs best in the South with some partial shade. Its common name, Obedient Plant, is derived from the flowers' ability to be manually moved on the stem and remain as arranged. 'Crystal Peak White' can be used as a border plant to attract hummingbirds, in mass plantings or as cut flowers. With its compact plant habit, this cultivar is well suited for container production or as a filler in mixed-combination planters.

Propagation

Physostegia 'Crystal Peak White' is propagated from seed. Sow two to three seeds per cell. Cover the seed lightly with germination mix or vermiculite after sowing to help maintain a suitable environment around the seed during germination. Moisten the seed flats and move them into a warm environment where temperatures can be maintained at 66-72° F for germination. Consider germinating physostegia in a chamber where uniform moisture levels and temperatures can be maintained.

Seedlings typically emerge within 10 to 16 days of sowing. Reduce moisture levels after germination and allow the growing medium to dry out slightly before watering. Following germination, they can be grown at



The flowers of "obedient plant" can be moved manually along the stem and keep their place.

slightly lower temperatures (60-64° F) until they reach a transplantable size. Fertilizers can be applied once the true leaves are present, applying 150-ppm nitrogen every third irrigation or 75 ppm with every irrigation, using a balanced, water-soluble source. It takes six to seven weeks for plugs grown in 288-cell trays to reach a transplantable size when they are grown at 65° F.

Production

Physostegia is easy to grow and performs best when grown in a moist, well-drained medium with a slightly acidic pH of 5.5-6.2. When planting into gallon or smaller containers, use one 50- to 72-cell sized plug per container; when larger container sizes are being grown, plant multiple plugs per container to produce fuller containers. 'Crystal Peak White' performs best under "average" watering regimes. When irrigation is needed, water thoroughly and allow the medium to dry between waterings.

Although 'Crystal Peak White' is bred for first-year flowering, many growers plant them during the late summer prior to the intended date



of sale. Planting physostegia in this manner allows them to bulk up, produce more flowers per plant, and bloom more uniformly compared to when they are planted and grown for sales in the same growing season.

Physostegia are moderate feeders and perform best under a constant

liquid fertilization program at rates of 100-150 ppm or using higher rates of 200-300 ppm as needed. Fertility can also be delivered using controlled-release fertilizers by topdressing the media surface using the medium rate listed on the product's label, or incorporating them into the

growing medium prior to planting at a rate equivalent to 1.0-1.25 pounds of nitrogen per cubic yard of growing medium.

Physostegia are sometimes prone to iron and magnesium deficiencies. To reduce the incidence of iron deficiency symptoms, maintain

media pH levels between 5.5 and 6.2; if necessary, drench with acidified water to bring the pH back within the desired range. If the fertilizer source does not contain adequate amounts of iron or magnesium, or if deficiency symptoms appear, it may be beneficial to apply magnesium sulfate or iron chelate drenches.

Considering its compact growing habit, plant height control is not usually necessary when producing physostegia 'Crystal Peak White.' Many growers produce them at high plant densities or at pot-to-pot configurations and still do not need to control stem elongation. If desired, spray applications of 5-ppm uniconazole (Concise or Sumagic) or a tank mixture of 2,000 ppm daminozide (B-Nine or Dazide) + 3 ppm uniconazole can be applied to tone the crop.

Insects and Diseases

There are relatively few insects or diseases that attack physostegia, but aphids, spider mites and Western flower thrips are occasionally a concern. Physostegia are more prone to root rot pathogens than foliar diseases. They may also contract impatiens necrotic spot virus (INSV), particularly when they are overwintered and thrips were present during the previous summer or fall. Routine scouting should be sufficient to determine the presence of any pests

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or diseases and to determine whether control strategies are necessary.

Forcing

Although 'Crystal Peak White' is marketed as a first-year-flowering perennial and will bloom readily in its first growing season, it is considered to be a cold-beneficial plant; providing a cold treatment (vernalizing or overwintering them) results in more uniform flowering and more flowers per plant. It can be planted in the early fall, bulked up slightly and overwintered, much like a traditional perennial, or planted in spring using either vernalized or unvernallized plugs. Provide six to 10 weeks of cold (below 41° F) when vernalizing plugs or containers of physostegia.


Physostegia are facultative long-day plants that flower best when they are grown under long days. They also prefer to be grown under high-light intensities. If they are being grown during the late winter for early spring sales, grow them under supplemental lighting that delivers 400-500 foot-candles. For winter production, create long days using supplemental lighting for at least 16 hours per day. When the plants are being produced in the early spring (March 1 or later), they can be grown under natural light intensities with night interruption lighting to create long days.

Bloom time after long days is a

function of temperature. 'Crystal Peak White' flowers in 11 to 12 weeks when grown at 68° F. Growing them cooler will increase the time to flower.

Availability

Physostegia virginiana 'Crystal Peak White' is available to the

industry as seed, plug or finished container. The seed is supplied by Benary Seed (www.benary.com) and is available through many seed distributors. Plugs can be acquired from Swift Greenhouses, Inc. (www.swiftgreenhouses.com) and several reputable plant brokers. 

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