

The Propagation and Development of Penstemons

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Penstemons have enjoyed a strong recent revival. The constant influx of new cultivars has resulted in confusion in nomenclature. The National Council for the Conservation of Plants and Gardens Penstemon Collection at Pershore College has been reviewed and, where possible, synonyms identified. At the College, softwood cuttings taken in April or May have rooted reliably under polythene tents in 10 to 14 days, may be potted on in June or July and be saleable in the following spring.

INTRODUCTION

Penstemons were grown widely in the late 19th Century and enjoyed something of a revival in the U.K. in the mid 1950s. They have again become very popular, even being dubbed "the cult plant of the 1990s". The genus is the largest in the Scrophulariaceae with around 200 species and numerous, often confusingly named, hybrids. All the types cultivated in the UK are derived from the North American species. Both hybrids and species are popular in the U.K.; there is a definite preference for the species in the U.S.A. The hybrids, on account of their showy flowers, tend to be given the general specific name *Penstemon gloxinoides*. They are usually derived from accidental or deliberate crosses of *P. cobaea*, *P. hartwegii*, and *P. gentianoides*.

Pershore College of Horticulture holds one of the National Penstemon Collections of the National Council for the Conservation of Plants and Gardens (NCCPG). It is based on a personal collection donated by the late Ron Sidwell, first Vice Principal of the College. Ron also raised seedlings and selected the "bird" series of penstemons: 'Blackbird', the highly popular 'Osprey', and 'Raven'. Of these 'Osprey' is a little tender but 'Blackbird' very hardy. Although new seedlings continue to be selected at Pershore the prime purpose of the collection is to help to sort out the considerable confusion that exists with the existing species and cultivars.

Penstemons have a reputation for being rather tender. For the larger leaved hybrids this is generally true. The smaller leaved ones tend to be the most hardy and can survive quite hard winters given shelter from cold winds. *Penstemon* 'Andenken an Friedrich Hahn' (syn. 'Garnet') survived the 1981 to 1982 winter when such plants as *Cotoneaster lacteus* and *Elaeagnus pungens* were cut back to ground level. Penstemons are, however, easily killed by excessive moisture, thus an ill-drained container or site is unsuitable.

PROPAGATION

There is currently a strong market for penstemons in 1- and 2-litre pots and in 9-cm pots. Named cultivars do not come true from seed and in the past were often produced by semi-ripe cuttings taken in the late summer and autumn. Traditional cold frames were used, particularly for plants produced for one season summer bedding.

Experience at Pershore has shown most penstemons to root readily from cuttings taken from April to November although there are huge differences in subsequent survival, late season cuttings proving most difficult to reliably overwinter because they tend to rot. For this reason 6- to 9-cm nodal-tip cuttings taken in April and May have given the best overall results. Container stock plants under polythene have produced early ripe material and subsequent cuttings have performed well without hormone in PG56D trays (85-cc cells, 7 cm deep) under "in tunnel" polythene tents. The propagation mix must be freely drained; a peat and fine bark (Cambark fine) (1 : 1, v/v) mix has produced good results. The addition of Osmocote Mini resin-coated fertiliser at 1.5 kg per m³ has proved most satisfactory and ground magnesium limestone and Suscon Green (chlorpyrifos) for vine weevil control are added routinely at the College.

Rooting normally takes 10 to 14 days and a second crop of cuttings may be taken from the rooted plants within 4 weeks. The plants are potted up into the final pot in June or July, overwintered under polythene, and are ready for sale or cutting production in the following spring.

THE NATIONAL PENSTEMON COLLECTION

(Heights, where stated, are inflorescence maximum heights)

Cultivars of *P. gloxinioides*:

Alice Hindley. Large, pale mauve flowers with white throat and very open, white mouth. Tall, to 90 cm. Royal Horticultural Society Award of Garden Merit (AGM).

Andenken an Friedrich Hahn (syn. *Penstemon* 'Garnet'). Deep wine-red flowers, streaked throat. Bushy habit. Very hardy. AGM.

Apple Blossom. Small, blush-pink flowers with white, finely streaked throat. Dense, narrow foliage. 80 cm. AGM.

Barbara Barker. See 'Beech Park'.

Beech Park (syn. *Penstemon* 'Barbara Barker'). Large flowers, bright pink corolla lobes with white mouth and throat. 65 cm. AGM.

Blackbird. Deep purple, narrow flowers with heavily streaked throat. Tall, graceful, strong plant. 100 cm.

Blackbird (Ellis Form). Similar to above, but with narrower foliage. 70 cm.

Burgundy. Red-purple, rounded flowers with heavily streaked throat. Tall, robust plant. 90 cm.

Catherine De La Mare. Blue-tinged, pink flowers. Dull blue-green leaves. Spreading habit. Early and long flowering. 70 cm. AGM.

Charles Rudd. See *Penstemon* 'Countess of Dalkeith'.

Cherry Ripe. Cherry red, tubular flowers, streaked throat. Tall, to 100 cm. AGM.

Chester Scarlet (syns. *Penstemon* 'Mrs. Morse' and *P.* 'Souvenir d'André Torres'). Large, tubular, scarlet flowers with streaked throat. Vigorous, to 70 cm. AGM.

Connie's Pink. Slender, rose pink flowers, streaked throat. Tall, to 100 cm. AGM.

Cottage Garden Red (syn. *Penstemon* 'Windsor Red'). Narrow, bright red flowers with streaked throat. Red stems with narrow leaves. Similar to *P. hartwegii*. 70 cm.

Countess of Dalkeith (syn. *Penstemon* 'Charles Rudd'). Large, red-purple flowers with white throat. 85 cm.

Dazzler. See *Penstemon* 'Chester Scarlet'.

Drinkstone. Scarlet flowers, white-streaked throat, dark patches at mouth. Dark red stems. 50 cm.

Evelyn. Small, pink flowers with finely streaked throat. Narrow leaves. Neat, bushy plant. 45 cm. AGM.

Firebird. See 'Schoenholzeri'.

Flame. Large, scarlet flowers with heavily streaked throat. Similar to 'Chester Scarlet'. 65 cm.

Flamingo. Pink flowers, faintly streaked throat, large, round, white mouth. 50 cm.

Garnet. See *Penstemon* 'Andenken an Friedrich Hahn'.

Hewell Pink Bedder. Red-pink flowers with streaked throat. AGM.

Hidcote Pink. Small, rose-pink flowers with streaked throat. 85 cm. AGM.

Hopleys Variegated. Yellow variegated leaves. Violet flowers with white streaked throat. 65 cm.

King George V. Scarlet flowers. Slightly streaked, white throat. Tall, to 80 cm.

Knightwick. Purple-pink flowers, densely streaked throat. Broad leaves.

Lilac And Burgundy. Large, red-purple flowers with prominent maroon markings on throat. 85 cm.

Madame Golding. Coral-red flowers with heavily marked throat. 60 cm.

Margery Fish (probably syn. *Penstemon glaber*). Small, blue-mauve flowers in dense spikes. Shiny leaves. Spreading habit. Early and long-flowering. Hardy. 60 cm. AGM.

Maurice Gibbs. Magenta flowers with white throat and mouth. 90 cm. AGM.

Midnight. Deep violet flowers, corolla tinged blue, throat heavily streaked. Flowers in a dense inflorescence. Very dark green leaves. 80 cm.

Modesty. Pink flowers with white-streaked throat. 80 cm.

Mother of Pearl. Pale, pearly-white flowers with blue base to corolla. Throat streaked maroon. Tall, to 85 cm.

Myddelton Gem. Rich pink, tubular flowers with white throat. 80 cm.

Old Candy Pink. Rose-pink flowers, white-streaked throat. 75 cm.

Osprey. Large, open, cream flowers, pink corolla lobes. Tall, to 90 cm. AGM.

Papal Purple. Violet-purple, campanulate flowers, white, faintly streaked throat. 45 cm. There is some evidence that this variety should be reclassified as a new species.

Peace. White flowers with pink corolla lobes. More compact habit than 'Osprey'. 65 cm.

Pennington Gem. Pale pink flowers, finely streaked throat. Tall, to 95 cm. AGM.

Pershore Pink Necklace. A new variety raised at Pershore. Large pink flowers with deep pink 'necklace' in corolla tube. Vigorous, tall plant to 90 cm.

Phare. Tubular, scarlet flowers with white throat, slightly streaked at mouth. Red stems. Compact, bushy habit. 70 cm.

Pink Dragon. Deep pink flowers. Low growing. Early.

Pink Endurance. Small, bright pink flowers with white-streaked throat. Dense, narrow foliage. 90 cm.

Port Wine. Large, red-purple flowers with streaked throat. Tall, to 75 cm. AGM.

Prairie Fire. Small, slender orange-red flowers on tall stems. Strongly reflexed lower corolla lobes. Leaves form a basal rosette. Similar to *P. barbatus*, may be a form. 80 cm.

Purple Bedder. Deep purple-blue flowers, streaked throat. Very floriferous. Compact habit. 75 cm.

Raven. Large, deep purple flowers, white throat with prominent purple streaks. 75 cm. AGM.

Red Emperor. Bright red flowers. Similar to 'Chester Scarlet'. Tall, to 65 cm.

Rich Ruby. Large, wine red flowers with heavily marked maroon throat. Tall, to 85 cm.

Ridgeway Red. A new variety with large, red flowers, slightly streaked throat. Vigorous. Tall, to 75 cm.

Royal White. See *Penstemon* 'White Bedder'.

Rubicundus. Large, bright red flowers with large, round, white mouth and throat. 75 cm. AGM.

Russian River. Violet flowers, corolla tinged blue, heavily streaked throat. Dark green foliage. Similar to 'Midnight'. 95 cm.

Schoenholzeri (syn. *Penstemon* 'Firebird'). Dusky red flowers, throat heavily streaked with dark red blotches at mouth. Red stems with narrow leaves. Bushy habit. Vigorous. 70 cm. AGM.

Six Hills. Snowy, bright pink flowers. Early. Low growing, to 15 cm.

Snow Storm. See *Penstemon* 'White Bedder'.

Sour Grapes. Purple flowers with blue base to corolla. Flowers clustered at top of inflorescence. White-streaked throat.

Southcombe Pink. Pink flowers with white-streaked throat. 75 cm.

Southgate Gem. Red, tubular flowers with white-streaked throat.

Souvenir d'André Torres. See *Penstemon* 'Chester Scarlet'.

Stapleford Gem. Opalescent, pale blue-purple flowers, with streaked throat. Tall, to 80 cm. AGM.

Sutton's Pink Bedder. Pink flowers with white throat. 70 cm.

(Tall Pink). An accepted cultivar name is being sought for this plant. Pale, dusky-pink flowers with faintly streaked white throat. 120 cm.

Thorn. Creamy white flowers, corolla lobes pink with colour extending on to corolla tube. 85 cm.

Threave Pink. See *Penstemon* 'Pink Endurance'.

White Bedder (syn. *Penstemon* 'Royal White', *P.* 'Snow Storm', and *P.* 'Burford White'). Flowers pure white, sometimes tinged pink in bud. More compact than 'Snowstorm'. 65 cm. AGM.

Whitethroat, Ron Sidwell form. Red flowers with conspicuous white throat. 105 cm.

Windsor Red. See *Penstemon* 'Cottage Garden Red'.

Other species and their varieties and cultivars:

barbatus Small, orange-red flowers with strongly reflexed lower corolla lobes. Leaves form a basal rosette. Tall. Long flowering.

campanulatus (syn. *Penstemon kunthii*). Small, dark red flowers with white-streaked throat. Narrow leaves. Spreading habit. 60 cm.

***campanulatus* f. *roseus*.** Small, campanulate, purple flowers, streaked throat. Narrow leaves.

***confertus*.** Very small, creamy yellow flowers in dense terminal clusters. Low growing, to 45 cm.

***davidsonii* var. *menziesii*.** Purple-blue flowers on short stems. Small, leathery leaves. Low growing. Early.

***digitalis* 'Huskers Red'.** Large, purple-tinged leaves. Tall spikes of off-white flowers. Early. 170 cm.

***fruticosus*.** Pale purple flowers, low-growing. Early.

***fruticosus* var. *scouleri*.** Pale purple flowers, small leaves, low-growing, to 20 cm. Early.

***fruticosus* var. *scouleri* f. *albus*.** Creamy white flowers.

***gentianoides*.** Small flowers, flattened violet-blue corolla, white throat. Fine, bushy plant. 30 cm.

glaber (probably syn. 'Margery Fish'). Small, blue-mauve flowers. Low-growing. Early and long-flowering. 60 cm.

***gracilis*.** Small, flattened, violet-blue flowers, white throat. Broad, serrated leaves. Similar to *P. gentianoides*.

***hallii*.** Blue-violet flowers. Prostrate habit. Early. 15 cm.

hartwegii (syn. 'Torquay Gem'). Narrow, blood-red flowers with streaked throat; dark red stems. Long flowering. 80 cm. AGM.

hartwegii f. *albus*. Slender, creamy-white flowers. Fresh green leaves. 70 cm.

heterophyllus. Blue-violet flowers. Early. Hardy. 50 cm.

heterophyllus 'Blue Eye'. Small, deep blue-violet flowers. 45 cm.

heterophyllus 'Blue Fountain'. Small, violet-blue flowers. Mildew free.

heterophyllus 'Blue Gem'. Intense blue flowers. One of the best blue penstemons, but prone to mildew.

heterophyllus 'Blue Robin'. Small, deep violet-blue flowers.

isophyllus. Slender, coral-red flowers, streaked throat. Tall, rigid plant to 140 cm. AGM.

kunthii. See *Penstemon campanulatus*.

lyallii. Small, amethyst-blue flowers in dense clusters. Broad, fresh green, serrated leaves. 70 cm.

newberryi. Large, rosy-purple flowers. Low growing. Early flowering. A good rock garden plant. 20 cm.

ovatus. Small, blue-purple flowers from basal rosette of large leaves. 95 cm.

pinifolius. Very small, orange-red flowers, needle-like foliage. Very low growing to 30 cm.

pinifolius 'Mersea Yellow'. Small yellow flowers, even dwarfer than species, to 15 cm.

roseocampanulatus. (Botanical Editor note: Name not validated) see *P. barbatus*.

serrulatus (syn. *Penstemon diffusus*). Amethyst-blue flowers in terminal clusters. Broad leaves. Low growing, to 30 cm.

serrulatus 'Albus'. White flowers. 30 cm.

strictus. Deep violet flowers with flattened corolla. Tall spikes of upward-facing flowers. Low habit.

virgatus ssp. *arizonicus*. Similar to *P. digitalis*.