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Penstemon ‘Dark Towers’

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Penstemon Mitch. (Plantaginaceae Juss. formerly Scrophulariaceae Juss.) is a genus of plants with ≈271 species that can be found from low deserts to high alpine areas (Lindgren and Wilde, 2003; Wolfe et al., 2006). It is one of the largest genera of North American wildflowers. Some *Penstemon* are easy to grow; others are very challenging to maintain (Lindgren and Wilde, 2003). Numerous selections of *Penstemon* have been named and released (Lindgren, 2006) and many crosses between species have been attempted (Lindgren and Schaaf, 2007). New *Penstemon* selections are needed that combine valuable traits of multiple species and cultivars. Several nurseries have also expressed the desire to have a plant similar to *Penstemon digitalis* Nutt. ‘Husker Red’ only with purple and/or red flowers instead of white flowers.

Origin

A cross was made in 1995 between *Penstemon digitalis* Nutt. ‘Husker Red’ (Lindgren, 1984) with the pollen parent *Penstemon* ‘Prairie Splendor’ (*Penstemon cobaea* Nutt. × *Penstemon triflorus* A. Heller) (Lindgren, 1993). Three selections were made in 1997 out of the resultant population of seedlings, DM1, DM2, and DM3. All three selections displayed darker fall foliage color than the parent ‘Husker Red’ and were more similar in appearance to ‘Husker Red’ than ‘Prairie Splendor’. The plants were evaluated in field plots until 2003. In 2004, plants of the three selections were evaluated in an additional site at Canby, OR. Selection DM1 was selected and given the cultivar name ‘Dark Towers’. The name ‘Dark Towers’ was selected because after flowering is complete, the flower stalks have dark stems and seed pods, darker than *Penstemon* ‘Husker Red’. The flowers of ‘Dark Towers’ are pink–lavender rather than white as found in ‘Husker Red’. A comparison of traits of the parents, ‘Husker Red’ and ‘Prairie Splendor’, with ‘Dark Towers’ is found in Table 1.

Description

The description of ‘Dark Towers’ *Penstemon* is based on observations of 2-year-old specimens grown in the ground in full sun in the trial fields at Canby, OR, and of 4-year-old plants at North Platte, NE. The color descriptions are all based on the Royal Horticultural Society Color Chart (Royal Horticultural Society, 1995) and are listed as a color description and corresponding reference number. Canby, OR, is in Zone 8 on the USDA hardiness map. Temperatures range from a high of 35 °C in August to an average low of 0 °C in January at Canby. Normal rainfall in Canby is 109 cm/year. North Platte, NE, is on the edge of Zone 4 and Zone 5 on the USDA hardiness map. Average annual precipitation at North Platte is just over 48 cm. Average annual midday relative humidity averages 52%. The average number of frost-free growing season days is 150. Soil at the North Platte, NE, site is a Cozad silt loam (fine-silty, mixed, mesic *Fluventic Haplustoll*), pH 7.6 to 7.8. SDS are included as a measure of variation in Tables 1 and 2. The measurements in the text are from Canby, OR, and no SDS or ranges were provided.

‘Dark Towers’ is a relatively tall plant compared with many cultivars of *Penstemon*. At Canby, OR, plants of ‘Dark Towers’ average 77 cm wide and 77 cm high for plants in flower. Plants at North Platte, NE, average 69 cm in height (Table 1).

The inflorescence type of ‘Dark Towers’ is a panicle that grows to 16 cm long and 10 cm wide. Leaves of ‘Dark Towers’ have an acuminate apex, clasping base and pinnate venation, and leaf surfaces are glabrous. The color of the upper leaf surface is grayed purple 187A to brown 200A. Leaf size varies from 11.5 to 16.0 cm in length to 2.6 to 3.2 cm in width. Flower buds grow to ≈24 mm long and 5 mm wide before opening. The number of blooms varies from 50 to 75 blooms per panicle. Overall flower size is ≈34 mm long and 20 mm wide. Flowers are

tubular in shape, glabrous inside, and glandular outside. The corolla is bilabiate with three basal lobes, two upper lobes, with the lobes’ main outside color purple 76A. The constricted part of the lobe is colored purple 77A, the main inside color is purple 76C lightening to 76D on the lobes, and lower basal guidelines are purple 77A. Each flower has one pistil, averaging 25 mm long, and is attached to an ovary, which averages 4.5 mm long and 2 mm wide. Pistil color is purple 76B and ovary color is between black 202A and grayed purple 187A. Each flower has four fertile stamens and one sterile stamen. Filaments (purple 76A) on the fertile stamens are 20 mm long. Unopened anthers (black 202A) are 2 mm wide and 2 mm long. Pollen (white 155D) is white. The staminode (sterile stamen) is 11 mm long, attached to the upper part of the tubular flower and slightly curved downward at the tip, pubescent on the top 6 mm from tip, pubescent on the bottom 2 mm from tip ≈1 mm long, golden in color with slight purple tint at the base. The calyx is composed of five reflexed sepals (color between black 202A and grayed purple 187A), each 5 mm long and 1.5 mm wide. Bloom period is June to July with each flower lasting ≈1 week. The seed pod (brown 200A) is a glabrous capsule, 10 mm long and 6 mm wide. A comparison of traits between ‘Husker Red’ and ‘Dark Towers’ at North Platte, NE, is found in Table 2.

Recommendations

‘Dark Towers’ can be used in the landscape for its medium height as either a border or accent plant. The reddish purple foliage and dark purple seed pods contrast sharply with green foliage colors in the garden and landscape. The reddish foliage is an attractive feature throughout the year and seed stalks are dark red from June to being cut back in the fall, winter, or spring. It tolerates high heat and humidity and lower soil moisture content. The only disease observed on ‘Dark Towers’ has been an occasional slight susceptibility to powdery mildew in a greenhouse environment at North Platte, NE.

‘Dark Towers’ has not been evaluated under all possible environmental conditions. The phenotype may change with variations in environment. ‘Dark Towers’ is asexually propagated from stem cuttings or by tissue culture. No fertile seed has been produced in Canby, OR, and North Platte, NE.

Table 1. Plant comparisons of *Penstemon* ‘Dark Towers’ and its parents at North Platte, NE, in 2008 (mean ± SD, n = 10).^z

	‘Dark Towers’	‘Husker Red’	‘Prairie Splendor’
Average plant height (cm)	69 ± 5.8	86 ± 5.1	66 ± 4.9
Average stalks/plant	22 ± 3.9	24 ± 3.8	5.8 ± 2.1
Average flowers/stalk	55 ± 7.2	50 ± 5.9	36 ± 5.1
Average beginning flowering	5 June to 5 July	15–20 June	25 May to 5 June
Average flower length (mm)	34 ± 1.8	28 ± 2.3	49 ± 4.4
Average flower width (mm)	18 ± 1.5	19 ± 1.4	35 ± 1.7
Average flower height (mm)	15 ± 3.3	17 ± 1.6	30 ± 4.1

^zFlower times are for multiple years.

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Table 2. Comparison of traits for 'Dark Towers' and 'Husker Red' at North Platte, NE, in 2008 (mean \pm SD, n = 10).^z

	'Dark Towers'	'Husker Red'
Top leaf length ^y	95 \pm 7.4	65 \pm 10
Top leaf width ^y	41 \pm 3.2	33 \pm 6.1
Intermediate leaf length ^x	137 \pm 10.5	103 \pm 10.7
Intermediate leaf width ^x	44 \pm 4.3	44 \pm 5.2
Basal leaf length ^w	172 \pm 19.2	147 \pm 27.3
Basal leaf width ^w	35 \pm 4.8	26 \pm 7.4
Peduncle length	50.2 \pm 6.2	45.9 \pm 9.3
Pedicele length	5.7 \pm 2.4	6.4 \pm 3.1
Bud length	24 \pm 1.8	23 \pm 2.3
Bud width	5.0 \pm 0.9	8.0 \pm 1.2
Sepal length	6.0 \pm 1.1	7.0 \pm 0.9
Stamen length	23 \pm 2.3	19 \pm 2.2
Pistil length	25 \pm 1.1	18 \pm 1.3
Staminode length	22 \pm 1.6	16 \pm 0.7
Ovary length	4.3 \pm 0.4	4.3 \pm 1.1
Ovary width	2.1 \pm 0.3	2.0 \pm 0.6
Anther (unopened) length	2.3 \pm 0.1	2.3 \pm 0.2
Anther (unopened) width	1.1 \pm 0.1	1.1 \pm 0.1
Anther (opened) length	1.5 \pm 0.1	1.4 \pm 0.1
Anther (opened) width	0.6 \pm 0.1	0.7 \pm 0.1

^zAll measurements in millimeters.

^yLeaf immediately under first flower branch.

^xLeaf midway between basal leaves and inflorescence.

^wFirst leaf at base, ground level, of flowering plant.

Availability

'Dark Towers' has been licensed to and is available from Terra Nova Nurseries, Inc., P.O. Box 23938, Tigard, OR 97281. The U.S. patent application number is 12/001,347. Terra Nova Nurseries should be contacted for information about obtaining this plant.

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