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New Plant Introductions — Cultivar Releases

'Blue Myth' *Trichostema*[1]

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Origin

The genus *Trichostema* L., in the family Lamiaceae, is comprised of roughly 18 species and includes both annual and perennial plants. The range of distribution for the genus extends from central Mexico to southern Canada, and across the continental United States (3). Of the species, *T. lanatum* Benth. is the most commonly grown due to its numerous verticillasters of woolly, blue flowers as well as its aromatic foliage. However, *T. lanatum* is difficult to cultivate in areas with summer rainfall (2). We had hoped through hybridization to develop a commercially-accepted plant having similar landscape appeal of *T. lanatum*, but with easier culture.

A single plant of *T. lanatum* was raised from seed obtained from Southwestern Native Seeds (Tucson, AZ). Seed of *T. arizonicum* Gray was also obtained from the same source. Controlled pollinations between *T. arizonicum* (female) × *T. lanatum* (male) were made beginning on August 24, 2004. Five viable seedlings were obtained from this cross, of which two later died. One of the hybrids, later selected and named 'Blue Myth' based on its unique flower color, was superior to the other two progeny and the parents in growth habit and flower production. This is the first report on artificial hybridization between two species in the genus *Trichostema*.

Description

'Blue Myth' is a perennial subshrub having multiple herbaceous axillary shoots originating from the main stem (Fig. 1). Stems are sparsely hirtellous with short hairs. The bark is light brown (199B, RHS) (5). Mature height is approximately 0.6 m (2 ft) with an equal width.

Leaves are glabrous, lanceolate with entire margins and range from 33–47 mm (1.30–1.85 in) long and 6–9 mm (0.24–0.35 in) wide. Leaf margins are entire with a slightly acute apex. Numerous smaller leaves can be found in the axils. Petioles are sessile or indefinite, up to 3 mm (0.12 in) long. Cymes are up to 40 mm (1.57 in) long with 5–12 flowers borne in panicles. Corolla-tubes, not exserted from the calyx, are up to 5 mm (0.2 in) long. Posterior corolla lobes range from 5–9 mm (0.2–0.35 in) long and 2–4 mm (0.08–0.16 in) wide. Posterior corolla lobe color is purple (86B, RHS) (5). The anterior corolla lobe is 6–9 mm (0.24–0.35 in) long and 5–7 mm (0.2–0.28 in) wide. Anterior corolla lobe color is royal purple (89B, RHS) (5). Stamens and style are strongly arched, ranging from 9–15 mm (0.35–0.59 in) and 23–30 mm (0.91–1.18 in) long, respectively. Stamen length ranged from 9–15 mm (0.35–0.59 in) long. Anther color is greenish-yellow (1C, RHS) (5). Filament color is dark lavender (76A, RHS) (5). Pistil length is up to 27 mm (1.06 in) long. Style color is light purple (76A, RHS), while the tip color is dark purple (83A, RHS) (5).

On the hybrid 'Blue Myth', the stamen, lip, non-exserted corolla-tubes, and growth habit resemble *T. arizonicum*, while the pistil and corolla lobes resemble *T. lanatum*. Leaf morphology and pubescence on the stem, sepals, and corolla lobes are intermediate between the parents.

Cultural Conditions

Plants of 'Blue Myth' have grown readily in well-drained containers in the greenhouse since 2005. Cuttings rooted from 'Blue Myth' were field-planted at the University of Arkansas Research Farm in Fayetteville, AR (USDA Zone 6a/7b), the spring of 2006, where it was successfully grown in full sun. *Trichostema* generally grows in full sun locations with well-drained soils.

Propagation, Performance and Adaptability

Asexual reproduction of this hybrid was accomplished using both softwood cuttings and plant tissue culture. Softwood cuttings were taken in the spring or summer, dipped in 1,000 ppm K-IBA, and placed under intermittent mist in perlite or other similar medium. The bloom quality, duration, and consistency of 'Blue Myth' were superior to that of either parent. Peak flowering was in spring. Flowering typically occurred on new growth, so removing spent inflorescences and

Fig. 1. 'Blue Myth' growth habit.

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lightly shearing the plant increased flower production. Winter hardiness of *T. lanatum* is reported to be to Zone 9 (20–30F) (2). Neither the parents nor 'Blue Myth' survived the winter outside in Fayetteville, AR. 'Blue Myth' should be planted in areas where *Trichostema* is currently cultivated outdoors, or used as a container plant elsewhere.

Sterility

No seed has been produced by 'Blue Myth' for two consecutive years despite attempts to self and sib-cross the hybrid. The lack of fertility in the F1 plant was not expected, as both plants are reported to have the same chromosome number (4). Microscopic examination of pollen from 'Blue Myth' and its parents stained with acetocarmine, revealed that 'Blue Myth' pollen was roughly half the size of the pollen of either parent and had a flaccid appearance, ranging from elliptical to crescent-shaped, indicating lack of maturity. Attempts to germinate pollen in vitro on Brewbaker-Kwak (1) media were not successful. The benefit of sterility in 'Blue Myth' is abundant indeterminate flowering unlike either parent.

Availability

'Blue Myth' has been distributed to nurseries, but is not yet in general commerce. Tissue-culture propagules can be obtained by contacting Dr. Jon Lindstrom, 316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701 or <tranell@uark.edu>.

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