

SUBGENERA: *PENSTEMON*
Section: *Peltanthera*
Subsection: *Peltanthera*

CULTIVATION OF EACH SPECIES
Table 18

[subgenus]	PENSTEMON
[section]	<i>Ambigui</i> <i>Baccharifolii</i> <i>Chamaeleon</i> <i>Coerulei</i> <i>Cristati</i> <i>Ericopsis</i> <i>Fasciculus</i> <i>Peltanthera</i> (29) <i>Penstemon</i>
[subsection]	<i>Centranthifolii</i> (10) <i>Havardiani</i> (3) <i>Peltanthera</i> (15) <i>Petiolati</i> (1)

GENERAL DESCRIPTION OF PENSTEMONS IN THIS SECTION

Large and tall, spectacularly beautiful. Many spires of pink to bright red flowers. Leaves in shades of gray or blue-green, leathery, and have a succulent look. All inhabit desert states of the southwest or parts of northern Mexico. Very drought tolerant. Easy to grow in poor soil; need bright sun. Not long-lived.¹² Some of the most popular, classic, and exciting species are found in this subsection, *Peltanthera*.

Location northern Mexico north into desert part of the Intermountain Region, s. CA, e. to TX.

Habitat

¹ abstracted from Lindgren, Dale and Wilde, Ellen. 2003. "Growing Penstemons: Species, Cultivars and Hybrids." and Way, David and James, Peter. 1998. "The Gardener's Guide to Growing Penstemons."

Foliage herbaceous or suffrutescent (almost a shrub)

Shape: stems are wand-like

Leaves: evergreen, grey or blue-green color, glaucous (leaf surface covered with a fine, waxy powder), glabrous (smooth, hairless) thick, leathery; sometimes serrated (toothed edges); look succulent; often connate-perfoliate (joined at the base and surrounding a stem, as a pair of leaves; stem appears to have "pierced: through the leaf pair) ; stems and leaves of seedlings can be quite attractive in the winter, turning various colors of pink



Penstemon floridus



Penstemon spectabilis courtesy of Charles E. Jones
charliejones[AT]aol.com. (Replace the [AT] with the @ symbol before sending an email.)

Plant in bloom

Corolla (flower) pink to bright red
color bright pink to bright red
size



Penstemon clutei

shape open



Penstemon clutei

Inflorescence (arrangement of flowers along flowering stalk; all the flowers on the stalk): wand like

height

shape

Calyx (sepals on underside of flower, collectively; outermost part of the flower)

Cultivation needs southern desert penstemons, or any penstemon blooming in February, March, or April need warm weather prior to bloom date and order to have enough growth to bloom; thus for those growing these species under cover, the cover should not be removed prematurely

Ease of cultivation easy in poor soils where it is dry most of the time

Moisture: very drought tolerant; if over watered, will droop.

Sun need bright sun.

Heat tolerance yes

Cold tolerance: tolerate fairly cold temperatures.

Shade not advised; reduces bloom and vigor

Soil poor soil with low organic content.

Drainage must be excellent for plant to survive

Climate preference snowy or dry winter, moist spring and/or monsoon seasons; dry summers

Longevity short lived, but “must-have penstemons” (Lindgren, D. and Wilde, E. “Growing Penstemons Species, Cultivars and Hybrids”)

Interbreeding natural hybrids within subsection *Peltanthera* are common

Display recommendations Dryland or wild garden; border; particularly enjoyable if they are given space



Penstemon palmerii

Pollinated by Most penstemons are visited by several bee species including honeybees and bumblebees. While hummingbirds prefer red penstemons, they commonly are seen at most penstemon species. It has been noted that hummingbirds, bees, wasps (*Pseudomasarid* ssp), and sphinx moths are particularly attracted to species in this subsection.

Species

<i>angelicus</i>	<i>eximeus</i>	<i>incertus</i>	<i>spectabilis</i>
<i>bicolor</i>	<i>floridus</i>	<i>palmeri</i>	<i>stephensii</i>
<i>clevelandii</i>	<i>fruticiformis</i>	<i>pseudospectabilis</i>	<i>vizcainensis</i>
<i>clutei</i>	<i>grinnellii</i>	<i>rubicundus</i>	

Table 18. *Penstemon Peltanthera Peltanthera*

Key
 Column 1 SPECIES: species name; plant height when in bloom; color(s) of flower; fill in lavender =popular; parenthesis = not reported in cultivation
 Column 3 CULTIVATION SUGGESTIONS:
 Row 1 SIZE OF FLOWER: **very large**= >1 ½“ **large**=1-1 3/8” **medium**= ½ - 1” **small**= < ½“
 Row 2 GENERAL DESCRIPTION
 Row 3: DISPLAY SUGGESTIONS
 Row 4: WHERE SPECIES HAS BEEN SUCCESSFULLY CULTIVATED OUT OF NATIVE HABITAT

☀ full sun ☁ partial shade

Species	Bloom Season in Native Habitat	Cultivation Suggestions	Cultivation Needs			Elevation and Habitat	Distribution	Reported cold hardiness in cultivation
			Garden Soil	Moisture	Sun			
<i>(angelicus)</i>	April-May	medium flower	NA	NA	NA	island off coast of Baja California	NA	
up to 4 ½ ‘ scarlet <i>bicolor</i>	April-May	medium flower somewhat similar to <i>P. palmeri</i> ; one subspecies can get up to 100” tall unknown in w.OR bloomed in trough with winter cover, pumice soil	sandy-gravelly; sharp drainage	dry	☀	2300-5000’ gravelly, rocky desert soils; creosote bush communities	e. CA, w. 	zone 6
rare								

<p><i>clevelandii</i></p> <p>15-24' x 11.7" wide</p> <p>fuchsia pink to red-purple</p>	<p>March-May</p>	<p>large flower</p> <p>pretty; long funnel-form flowers that cover their bloom stems</p> <p>evergreen leaves slightly toothed and deep green</p> <p><u>varieties</u></p> <p><i>conatus</i> sharply toothed leaves</p> <p><i>mohavensis</i> coarsely toothed</p> <p>dryland garden</p> <p>cultivated in: se. WA, VA, wVA, CA, AZ; not successful in trough in w OR</p>	<p>sandy or rocky</p> <p>pH 7.0-8.0</p>	<p>semi dry</p>		<p>1300-6000'</p> <p>dry open slopes; deserts and canyons; in creosote, juniper-pinyon & chapparal communities</p>	<p>s. CA, Sonora, Mexico</p> 	<p>zone 6</p> <p>tolerates some frost to about 10°F; USDA Zones: 9-10</p>
<p><i>clutei</i></p> <p>3 ½' deep pink, bluish</p> <p>EASY</p> <p>ORVs are threatening its native stands</p>	<p>June</p>	<p>large flower</p> <p>a favorite; robust, lovable; reliable, bright, showy, deep pink flowers</p> <p>beautiful fall foliage</p> <p>hardy; long lived; self sows;</p> <p>dryland garden</p> <p>cultivated in: WA, NM, CO, NE, NJ, NY, VA, OH, Manitoba; not successful in ground in w OR</p>	<p>many types despite endemically found only in volcanic soil</p>	<p>drought tolerant</p>		<p>6500-8500'</p> <p>volcanic bare cinders with little or no soil accumulation; ponderosa pine forest, scattered pinyon and Utah juniper</p>	<p>Sunset Crater, AZ</p> 	<p>-20°F Denver 2007</p>

<p><i>(eximeus)</i></p> <p>up to 7-8' pale pink to cream</p>	<p>May-June</p>	<p>medium flower</p>	<p>NA</p>	<p>NA dry soils</p>	<p>NA</p>		<p>Baja California</p>	<p>NA</p>
<p><i>floridus</i></p> <p>3-5' x 11.7" wide</p> <p>deep pink to rose ventricose or ampliate</p>	<p>June-July</p>	<p>large flower</p> <p>lovely flowers that have an unusual shape;</p> <p>robust, beautiful, interesting foliage of dentate leaves;</p> <p>will rebloom if pruned and watered;</p> <p>difficult to transplant in Denver: advise providing shade for most of the day following transplanting,, then gradually reducing; water generously through the first year</p> <p><u>variety</u> <i>austinii</i> is particularly tall</p> <p>dryland garden; wildflower garden; desert-like display garden</p> <p>cultivated in: CO</p>	<p>pH 7.0-8.0; rock scree, sandy-gravelly</p> <p>sharp drainage</p>	<p>spring only, unless in arid, hot summer environment then will tolerate, even enjoy summer moisture</p>	<p>☀</p>	<p>6000-8000'</p> <p>desert foothills; hillsides above lower Rock Creek off Hwy 395</p>	<p>n. Death Valley CA, NV</p> 	<p>zone 6, but some variance</p> <p>about 50% survived - 20°F Denver 2007</p>

<p><i>fruticiformis</i></p> <p>12-14.6" x 15.6" wide</p> <p>pink to white or pale lavender</p> <p>EASY in California</p> <p>rare, threatened</p>	<p>May-June</p>	<p>medium flower</p> <p>bushy, multi-branched; shaped like a shrub; wide; floriferous; red-violet guidelines</p> <p>very narrow blue-green leaves</p> <p>attracts bumblebees; no information</p> <p>cultivated in: appears to be under cultivation as is offered in a Colorado seed catalog and APS seed exchange</p>	<p>alkaline, sandy screens</p>	<p>spring only, sparingly</p>	<p>☀</p>	<p>4000-6300'</p> <p>desert washes, rocky places in creosote bush, pinyon-juniper and Joshua tree communities</p>	<p>near Death Valley</p> 	<p>zone 7</p>
<p><i>grinnellii</i></p> <p>12-20" x 9.8" wide</p> <p>white, lavender to lavender-pink</p>	<p>Apr-Aug</p>	<p>medium flower</p> <p>highly recommended; very showy; distinct guidelines</p> <p>bushy; attractive foliage; nearly cylindrical leaves which fold lengthwise; can sprawl and be quite wide in the garden;</p> <p>bee pollinated</p> <p>border; dryland or wild garden; large rock garden with desert motif</p> <p>cultivated in: WA, NV, VA, CO</p>	<p>fast draining</p>	<p>excessive moisture may contribute to sprawling</p>	<p>☀ sprawls in the shade</p>	<p>1640-9500'</p> <p>dry, rocky slopes; chaparral, foothill and pinyon-juniper woodland, montane coniferous forest to 8000', dry gravelly mostly granitic slopes</p>	<p>s. CA</p> 	<p>zone 6</p> <p>but tolerated -20°F in Denver 2007 (v grinnellii)</p>
<p><i>incertus</i></p> <p>19.5-30" x 27.3" wide</p> <p>red-violet with blue lobes</p> <p>close relative and look alike of <i>P. barbatus</i></p>	<p>May-June</p>	<p>large flower</p> <p>floriferous, long blooming;</p> <p>rounded shrub with thick, linear leaves;</p> <p>"...it loves a south facing gravelly bank on the nursery grounds that is so miserably hot and cold the weeds have trouble."(Las Pilitas)</p> <p>cultivated in: Los Angeles, se. WA</p>	<p>rocky loam</p>	<p>drought tolerant</p>	<p>☀</p>	<p>3300-5600'</p> <p>sandy washes, foothills pinyon/juniper</p>	<p>w. side of Mojave Desert, CA</p> 	<p>hardy to 15° F</p> <p>zone 7</p>

<p><i>palmeri</i></p> <p>to 4' x 12'-16" wide</p> <p>almost white to deep pink</p> <p>EASY</p>	<p>May -Aug large flower</p> <p>one of most popular; spectacular bloom; tall, varying in height, usually about 3 ½' ; blooms well for at least 2 years; several to many stems; red-violet guidelines</p> <p>foliage described as “bushel-basket-sized;” leaves gray-green and toothed</p> <p>likely to grow large in the home garden</p> <p>one of the very few penstemons with an aroma</p> <p>short- lived, self seeds but not a pest</p> <p>pollinated by bumblebees</p> <p>tap root;</p> <p>seeded by highway depts. in many western states;</p> <p>dryland or wild garden</p> <p>cultivated in: the northeast, NM, CO, ID, e. WA, AZ, NM, Manitoba; in w OR it bloomed in pot then expired</p>	<p>well drained, lean</p> <p>pH 7.0-8.0</p>	<p>drought tolerant</p>	<p>☀</p>	<p>22600-8950'</p> <p>desert; sagebrush, pinyon-juniper communities</p>	<p>CA, UT, NV, AZ</p> 	<p>- 20°F Denver 2007</p> <p>generally hardy below 0° F;</p> <p>zone 5-6</p>
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<p><i>pseudospectabilis</i></p> <p>30-36" x 11.7" wide</p> <p>bright rose-red</p> <p>EASY</p>	<p>Apr-June</p>	<p>medium to large flower</p> <p>gorgeous specimen plant; many stems; long blooming, can re-bloom after irrigation</p> <p>attractive broad, gray-blue, smooth, toothed leaves; many-stemmed;</p> <p>this <i>Penstemon</i> loves hot weather, and is recommended for use throughout the southwestern US but also surprisingly hardy</p> <p>dryland or wild garden</p> <p>cultivated in: widely, including n VA in a mound of equal parts of sand, compost and pea-gravel,, OH, CO, e WA, e. OR and native areas</p>	<p>sand, compost, pea gravel to assure drainage</p>	<p>“give it a few deep soakings in the heat of the summer to keep the plant blooming for many months.” (High Country Gardens); over watering may cause sprawl</p>	<p>☀</p> <p>shade may cause sprawl</p>	<p>2000-7000'</p> <p>desert mountain;</p>	<p>CA, NV, AZ, NM</p> 	<p>zone 5</p> <p>hardy below 0° F;</p> <p>-20°F Denver 2007</p> <p>USDA Zones 5-10.</p>
<p><i>rubicundus</i></p> <p>4'</p> <p>rose, pink, orchid</p>	<p>June-Aug</p>	<p>large flower</p> <p>has been cultivated, well liked; as beautiful as <i>palmerii</i> and <i>floridus</i>; thought by some to be a hybrid of these two; guidelines</p> <p>toothed leaves</p> <p>a fine addition to any dry garden</p> <p>dryland garden</p> <p>not reported</p>	<p>lean, sandy ,rocky soil</p>	<p>seasonal rains</p>	<p>☀</p>	<p>4600-9350'</p> <p>mountain canyons</p>	<p>w. NV</p> 	

<p><i>spectabilis</i></p> <p>to 4'</p> <p>pink and blue in each flower</p>	<p>April-July</p>	<p>large flower</p> <p>spectacular; well liked</p> <p>many stems with flowers for half their length</p> <p>attractive foliage; sharply toothed leaves which surround the stem in the upper stem giving the appearance of the stem "piercing" the leaf;</p> <p>long-lived in cultivation</p> <p>cultivated in : s. CA, s. AZ, Albuquerque, Denver, VA in amended soil</p>	<p>compost, sand, pea gravel (in VA); needs good drainage</p>	<p>do not over water (Las Pilitas)</p>		<p>380-7900'</p> <p>deserts, dry washes , hillsides among chaparral; gravelly and sandy slopes, coastal sage scrub, chaparral, oak woodland,</p>	<p>around Los Angeles and Baja</p> 	<p>tolerates below 0 °F</p> <p>-20°F Denver 2007</p>
<p>(<i>stephensii</i>)</p> <p>up to 5'</p> <p>rose</p> <p>rare</p>	<p>May-June</p>	<p>medium flower</p>	<p>NA</p>	<p>NA</p>	<p>NA</p>	<p>5600-9200'</p> <p>slopes</p>	<p>e. Mojave CA</p> 	<p>NA</p>
<p>(<i>vizcainensis</i>)</p> <p>up to 7 ½ '</p> <p>rose</p>	<p>reports: July</p> <p>or Feb-Mar</p>	<p>medium flower</p>	<p>NA</p>	<p>NA</p>	<p>NA</p>	<p>low elevations</p> <p>sandy arroyos, very low rainfall area</p>	<p>s. tip Baja</p>	<p>NA</p>

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Penstemon palmerii William Baffin rose in background



Penstemon floridus

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