

## 2022 Rule Proposal #6

**Purpose of Proposal:** To modify the common names for *Penstemon* species appearing in Tables 2A and 6A of Volume 1, Volume 3 and Volume 4 as needed for consistency among the AOSA Rules volumes and to assign common names found in the USDA-GRIN or USDA PLANTS databases or in general use.

**Present Rule and Proposed Rule:** (changes indicated in red text)

Volume 1. Principles and Procedures

**Table 2A. Weights for working samples.**

Pure Seed Unit #	Chaffy Seed <sup>a</sup>	Kind of seed	Minimum weight for purity analysis <sup>b</sup>	Minimum weight for noxious-weed seed or bulk examination	Approximate number of seeds per gram <sup>c</sup>	Approximate number of seeds per ounce <sup>d</sup>
			Grams	Grams	Number	Number
1		<i>Penstemon barbatus</i> (Cav.) Roth beardlip penstemon	-	-	-	-
1		<i>Penstemon eatonii</i> A. Gray firecracker penstemon, <u>Eaton's penstemon</u>	3.5	35	735	20,900
1		<i>Penstemon grandiflorus</i> Nutt. <u>shell-leaf</u> penstemon, <u>shell-leaf beardtongue</u> , <u>large-flower beardtongue</u> , <u>large beardtongue</u>	-	-	-	-
1		<i>Penstemon hirsutus</i> (L.) Willd. <u>penstemon hairy beardtongue</u> , <u>northeastern beardtongue</u>	-	-	-	-
1		<i>Penstemon laevigatus</i> Aiton <u>shell leaf penstemon-eastern smooth beardtongue</u>	-	-	-	-
1		<i>Penstemon palmeri</i> A. Gray Palmer penstemon	2	20	1,250	35,500
1		<i>Penstemon penlandii</i> W. A. Weber Penland's beardtongue	3.6	36	693	19,647
1		<i>Penstemon</i> spp. penstemon, beardtongue	-	-	-	-
1		<i>Penstemon strictus</i> Benth. Rocky Mountain penstemon, <u>Rocky Mountain beardtongue</u>	2	20	1,080	30,618

**Table 6A. Methods of testing for laboratory germination.**

Kind of Seed	Substrata <sup>a</sup>	Temperature (°C)	First count (days)	Final count (days)	Specific requirements and notes	Dormant seed <sup>f</sup>
<i>Penstemon barbatus</i> , <i>P. grandiflorus</i> , <i>P. laevigatus</i> , <i>P. hirsutus</i>	P	15	8 <sup>b</sup>	18 <sup>c</sup>	Light	

Kind of Seed	Substrata <sup>a</sup>	Temperature (°C)	First count (days)	Final count (days)	Specific requirements and notes	Dormant seed <sup>f</sup>
<del>penstemon</del> (refer to Table 2A for common names)						
<i>Penstemon eatonii</i> firecracker penstemon, <u>Eaton's penstemon</u>						
Method 1	P	15;10-20	7 <sup>b</sup>	14 <sup>c</sup>	See sec. 6.8p	
Method 2	P	15;10-20	14 <sup>b</sup>	28 <sup>c</sup>	See sec. 6.8p	
<i>Penstemon palmeri</i> Palmer penstemon	P	15	14 <sup>b</sup>	28 <sup>c</sup>	Light	
<i>Penstemon penlandii</i> Penland's beardtongue						
Method 1	P	15-25	7 <sup>b</sup>	14 <sup>c</sup>	See sec. 6.8 m	
Method 2	P	15-25	7 <sup>b</sup>	14 <sup>c</sup>	See sec. 6.8 m	
<i>Penstemon</i> spp. penstemon or beardtongue, all species not named in <del>other rules</del> <u>Table 6A</u>						
Method 1	P	15;10-20	7 <sup>b</sup>	14 <sup>c</sup>	See sec. 6.8 p	
Method 2	P	15;10-20	14 <sup>b</sup>	28 <sup>c</sup>	See sec. 6.8 p	
<i>Penstemon strictus</i> Rocky Mountain penstemon, <u>Rocky Mountain beardtongue</u>	P	15	7 <sup>b</sup>	21 <sup>c</sup>	Light	

Volume 3. Uniform Classification of Weed and Crop Seeds (if adopted, changes will be made to all sections of Vol. 3)

NOMEN #	SCIENTIFIC NAME	COMMON NAME	FAMILY NAME	SPP CLASS	CONTAMINATING CLASSIFICATION						
					A	F	H	R	S	T	V
27235	<i>Penstemon barbatus</i> (Cav.) Roth	penstemon, beardlip	Plantaginaceae [Scrophulariaceae] [Veronicaceae]	F, R	W	C	W	C	W	W	W
27254	<i>Penstemon eatonii</i> A. Gray	<del>beardtongue, red;</del> penstemon, firecracker; <u>penstemon, Eaton's</u>	Plantaginaceae [Scrophulariaceae] [Veronicaceae]	F, R	W	C	W	C	W	W	W
316772	<i>Penstemon grandiflorus</i> Nutt.	beardtongue, large-flower; <u>beardtongue, large</u> penstemon, shell-leaf; <u>beardtongue, shell-leaf</u>	Plantaginaceae [Scrophulariaceae] [Veronicaceae]	F, R	W	C	W	C	W	W	W
27264	<i>Penstemon hirsutus</i> (L.) Willd.	beardtongue, hairy; <del>penstemon, type</del> <u>beardtongue, northeastern</u>	Plantaginaceae [Scrophulariaceae] [Veronicaceae]	F	W	C	W	W	W	W	W
27267	<i>Penstemon laevigatus</i> Aiton	<del>penstemon, smooth;</del> <u>beardtongue, eastern smooth</u>	Plantaginaceae [Scrophulariaceae] [Veronicaceae]	F	W	C	W	W	W	W	W
27279	<i>Penstemon palmeri</i> A. Gray	penstemon, Palmer	Plantaginaceae [Scrophulariaceae] [Veronicaceae]	F, R	W	C	W	C	W	W	W

NOMEN #	SCIENTIFIC NAME	COMMON NAME	FAMILY NAME	SPP CLASS	CONTAMINATING CLASSIFICATION						
					A	F	H	R	S	T	V
316014	<i>Penstemon penlandii</i> W. A. Weber	beardtongue, Penland's	Plantaginaceae [Scrophulariaceae] [Veronicaceae]	F, R	W	C	W	C	W	W	W
300438	<i>Penstemon</i> spp.	beardtongue; penstemon	Plantaginaceae [Scrophulariaceae] [Veronicaceae]	F	W	C	W	C	W	W	W
27289	<i>Penstemon strictus</i> Benth.	beardtongue, Rocky Mountain; penstemon, Rocky Mountain	Plantaginaceae [Scrophulariaceae] [Veronicaceae]	F, R	W	C	W	C	W	W	W

#### Volume 4. Seedling Evaluation

## SCROPHULARIACEAE, FIGWORT FAMILY

[Preferred family names according to GRIN are in brackets]

[Calceolariaceae:]

*Calceolaria* spp., calceolaria

[Linderniaceae:]

*Torenia fournieri*, blue wishbone-flower

[Phrymaceae:]

*Mimulus* ~~×~~*hybridus*, tiger monkeyflower

[Scrophulariaceae:]

*Nemesia* spp., nemesia

[Plantaginaceae:]

*Antirrhinum* spp., snapdragon

*Collinsia heterophylla*, Chinese-houses

*Digitalis* spp., foxglove

*Linaria* spp., linaria

*Penstemon barbatus*, beardlip penstemon

*Penstemon eatonii*, firecracker penstemon, Eaton's penstemon

*Penstemon grandiflorus*, large-flower beardtongue, large beardtongue, shell-leaf beardtongue, shell-leaf penstemon

*Penstemon hirsutus*, hairy beardtongue, northeastern beardtongue

*Penstemon laevigatus*, eastern smooth beardtongue

*Penstemon palmeri*, Palmer penstemon

*Penstemon penlandii*, Penland's beardtongue

*Penstemon strictus*, Rocky ~~Mtn.~~ Mountain penstemon, Rocky Mountain beardtongue

*Penstemon* spp., penstemon, beardtongue

*Veronica austriaca*, Hungarian speedwell

*Veronica spicata*, spike speedwell

### Harmonization and Impact Statement:

Wildflower species of *Penstemon* are not included in the Federal Seed Act. Although Schedule I to the Canadian Seeds Regulations Grade Table XV includes mixtures containing wildflowers, species of *Penstemon* are not listed in the grade table or the Canadian Method and Procedures for Seed Testing. The AASCO Recommended Uniform State Seed Law (RUSSEL) includes germination standards for *Penstemon barbatus*, *P. grandiflorus*, *P. laevigatus*, *P. pubescens*, all

of which are listed under the common name penstemon. This proposal will have little to no impact on these regulatory documents. The proposed changes in common names are more aligned with general usage in nationally recognized botanical databases and industry websites.

**Supporting Evidence:**

In Volume 3 of the AOSA Rules there are 30 taxa of *Penstemon* listed and of these taxa nine are shown in Volume 1 Tables 2A and 6A, and six taxa are listed in Volume 4 under the Scrophulariaceae, Figwort Family section. The common names assigned to some of the species listed in Volumes 1 and 4 are not consistent with those found in Volume 3. Some of the common names used in Volumes 1, 3, and 4 are not consistent with those found in the USDA-GRIN or USDA PLANTS databases or in general use in the seed industry and in botanical applications (refer to Table 1 and reference list for examples of common names used in nationally recognized databases, floras, and seed industry websites).

**Table 1.** Sources of common names for some species of *Penstemon*.

<b>Scientific Name</b>	<b>Common Name</b>	<b>Source</b>
<i>Penstemon eatonii</i> A. Gray	firecracker penstemon	Freeman (2019) Lady Bird Johnson Wildflower Center USDA-GRIN USDA-PLANTS
<i>Penstemon eatonii</i> A. Gray	Eaton's penstemon	Applewood Seed Co. Freeman (2019) Lady Bird Johnson Wildflower Center USDA-GRIN
<i>Penstemon grandiflorus</i> Nutt.	shell-leaf penstemon	Applewood Seed Co.
<i>Penstemon grandiflorus</i> Nutt.	shell-leaf beardtongue	Freeman (2019)
<i>Penstemon grandiflorus</i> Nutt.	large-flower beardtongue	Lady Bird Johnson Wildflower Center Prairie Moon Nursery
<i>Penstemon grandiflorus</i> Nutt.	large beardtongue	USDA-GRIN USDA-PLANTS
<i>Penstemon hirsutus</i> (L.) Willd.	hairy beardtongue	Applewood Seed Co. Chicago Botanic Garden New Moon Nursery University of Michigan Herbarium USDA-GRIN USDA-PLANTS Wiersema & León (1999)
<i>Penstemon hirsutus</i> (L.) Willd.	northeastern beardtongue	Freeman (2019) Native Plant Trust USDA-GRIN Wiersema & León (1999)
<i>Penstemon laevigatus</i> Aiton	eastern smooth beardtongue	Hawthorn Hill Native Wildflower and Rare Plant Nursery Lady Bird Johnson Wildflower Center USDA-PLANTS
<i>Penstemon strictus</i> Benth.	Rocky Mountain penstemon	Applewood Seed Co. Lady Bird Johnson Wildflower Center USDA-GRIN USDA-PLANTS
<i>Penstemon strictus</i> Benth.	Rocky Mountain beardtongue	Freeman (2019) Lady Bird Johnson Wildflower Center

Smooth penstemon is a common name best applied to *Penstemon digitalis* (Agrecol Native Seed & Plant Nursery) to which the common name foxglove beardtongue is also applied. The common name type penstemon, was applied to *Penstemon hirsutus* in the 1993 version of Handbook 25 (first version of the handbook in the current format – now known as Volume 3). This common name does not appear anywhere in botanical databases or literature. The common name red beardtongue is not found in the USDA-GRIN or USDA-PLANTS databases.

## References

- Agrecol Native Seed & Plant Nursery [https://www.agrecol.com/Smooth-Penstemon-Penstemon-digitalis--Plants\\_p\\_323.html](https://www.agrecol.com/Smooth-Penstemon-Penstemon-digitalis--Plants_p_323.html)
- Applewood Seed Company <https://www.applewoodseed.com/product/penstemon-shell-leaf/>
- Applewood Seed Company <https://www.applewoodseed.com/product/beardtongue-hairy/>
- Applewood Seed Company <https://www.applewoodseed.com/product/penstemon-eatons/>
- Applewood Seed Company <https://www.applewoodseed.com/product/penstemon-rocky-mountain/>
- Association of American Seed Control Officials (AASCO). 2016. Recommended Uniform State Seed Law (RUSSL). [https://www.seedcontrol.org/pdf/russl\\_2017.pdf](https://www.seedcontrol.org/pdf/russl_2017.pdf)
- Calflora <https://www.calflora.org/app/taxon?crn=6158>
- Canadian Methods and Procedures for Testing Seed (M&P). 2016 Edition. Canadian Food Inspection Agency.
- Chicago Botanic Garden [https://www.chicagobotanic.org/plantcollections/plantfinder/penstemon\\_hirsutus--hairy\\_beardtongue](https://www.chicagobotanic.org/plantcollections/plantfinder/penstemon_hirsutus--hairy_beardtongue)
- Federal Seed Act Regulations, Part 201 – Federal Seed Act Requirements. 2020.
- Freeman, C. 2019. Penstemon. In Flora of North America. Vol. 17 Magnoliophyta: Tetrachondraceae to Orobanchaceae. Oxford University Press.
- Hawthorn Hill Native Wildflower and Rare Plant Nursery <http://hawthornhillwildflowers.blogspot.com/2010/01/eastern-smooth-beardtongue-penstemon.html>
- Lady Bird Johnson Wildflower Center [https://www.wildflower.org/plants/result.php?id\\_plant=pest2](https://www.wildflower.org/plants/result.php?id_plant=pest2)
- Lady Bird Johnson Wildflower Center [https://www.wildflower.org/plants/result.php?id\\_plant=PELA8](https://www.wildflower.org/plants/result.php?id_plant=PELA8)
- Lady Bird Johnson Wildflower Center [https://www.wildflower.org/plants/result.php?id\\_plant=pegr7](https://www.wildflower.org/plants/result.php?id_plant=pegr7)
- Lady Bird Johnson Wildflower Center [https://www.wildflower.org/plants/result.php?id\\_plant=peea](https://www.wildflower.org/plants/result.php?id_plant=peea)
- Native Plant Trust <https://gobotany.nativeplanttrust.org/species/penstemon/hirsutus/>
- New Moon Nursery <http://www.newmoonnursery.com/plant/Penstemon-hirsutus>
- Prairie Moon Nursery <https://www.prairiemoon.com/penstemon-grandiflorus-large-flowered-beardtongue-prairie-moon-nursery.html>
- University of Michigan Herbarium <https://michiganflora.net/species.aspx?id=1960>
- USDA-GRIN. 2021. GRIN-Global U.S. National Plant Germplasm System. <https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearch?t=pnlspecies>
- USDA-PLANTS <https://plants.usda.gov/home>
- Wiersema, J. H. and B. León. 1999. World Economic Plants. CRC Press LLC. Boca Raton, FL.
- Wisconsin Pollinators [https://wisconsinpollinators.com/Plants/P\\_Details.aspx?plantid=103](https://wisconsinpollinators.com/Plants/P_Details.aspx?plantid=103)

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