

2021 Rule Change Proposal 5

Purpose of Proposal: To add *Carex hystericina*, [bottlebrush](#) sedge, to Volume 1, Table 2A of the AOSA Rules for Testing Seeds.

Present Rule: None

Proposed Rule: Volume 1. Principles and Procedures

Table 2A. Weights for working samples.

Pure Seed Unit #	Chaffy (C) or Super Chaffy (SC) ^a	Kind of Seed	Minimum weight for purity analysis ^b	Minimum weight for noxious weed seed or bulk examination	Approximate number of seeds per gram ^c	Approximate number of seeds per ounce ^d
			Grams	Grams	Number	Number
42	C	<i>Carex hystericina</i> Muhl. ex Willd. bottlebrush sedge	3.3	33	751	21,291

Harmonization statement: *Carex hystericina* is not currently listed in the Federal Seed Act Regulations, the Canadian Methods and Procedures for Testing Seeds, or the International Rules for Seed Testing. This species is sold in the native seed industry in the United States. Adding a pure seed unit definition and working weights to the AOSA Rules will ensure standard testing procedures among laboratories.

Supporting Evidence: *Carex hystericina* is a perennial sedge that is [also known as porcupine sedge](#). It is native to most of the United States and Canada. It loves moisture, which makes it useful in water mitigation areas and for controlling erosion along water margins.

Pure Seed Unit:



The procedures outlined in Section 13 of Volume 1 of the AOSA Rules for Testing Seeds were followed to determine the minimum weight for purity analysis and the approximate number of seeds per gram. Seed counts were conducted on seed lots received since 2011. The coefficient of variation for chaffy seeds (6.0) was not exceeded.

Table 1: Weight (grams) of eight 100 pure seed unit replicates of nine seed lots of *Carex hystericina*. The overall average weight for 100 seeds is 0.1331.

Lot No.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Ave Weight	CV
1	0.2321	0.2250	0.2320	0.2240	0.2276	0.2249	0.2185	0.2248	0.2261	1.85
2	0.2326	0.2374	0.2287	0.2265	0.2405	0.2348	0.2402	0.2376	0.2348	2.06
3	0.1079	0.1118	0.1123	0.1124	0.1139	0.1089	0.1093	0.1059	0.1103	2.30
4	0.2101	0.2052	0.2048	0.2022	0.2037	0.2096	0.2140	0.2123	0.2077	1.95
5	0.1734	0.1721	0.1600	0.1554	0.1552	0.1617	0.1646	0.1595	0.1627	3.97
6	0.0545	0.0564	0.0591	0.0536	0.0573	0.0580	0.0630	0.0627	0.0581	5.54
7	0.0465	0.0438	0.0481	0.0518	0.0508	0.0501	0.0493	0.0443	0.0481	5.78
8	0.0608	0.0588	0.0591	0.0573	0.0568	0.0567	0.0541	0.0587	0.0578	3.27
9	0.0879	0.0956	0.0995	0.0977	0.0908	0.0900	0.0875	0.0927	0.0927	4.52

References:

USDA-NRCS PLANTS Database / Hurd, E.G., N.L. Shaw, J. Mastrogiuseppe, L.C. Smithman, and S. Goodrich. 1998. *Field guide to Intermountain sedges*. General Technical Report RMS-GTR-10. USDA Forest Service, RMRS, Ogden.

<https://www.minnesotawildflowers.info/grass-sedge-rush/porcupine-sedge>

<https://www.prairienursery.com/porcupine-sedge-carex-hystericina.html>

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