

## 2021 Rule Change Proposal 16 - AMENDED

**Purpose of Proposal:** To add *Carex pseudocyperus*, cyperus-like 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) <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
42	C	<i>Carex pseudocyperus</i> L. cyperus-like sedge	4.5	45	552	15,649

**Harmonization statement:** *Carex pseudocyperus* 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 pseudocyperus* is a perennial sedge that is also known as false bristly sedge. It is native to the northern portions of the eastern and midwestern United States and to eastern and central Canada. It actively grows during the spring and fall when soil temperatures are cool.

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 2007. The coefficient of variation for chaffy seeds (6.0) was exceeded by Lot 9 (see Table 2).

Table 1: Weight (grams) of eight 100 pure seed unit replicates of twelve seed lots of *Carex pseudocyperus*. The overall average weight for 100 seeds is 0.1812.

Lot #	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Mean Weight	CV
1	0.0772	0.0791	0.0787	0.0783	0.0780	0.0752	0.0781	0.0823	0.0784	2.38
2	0.0814	0.0787	0.0798	0.0668	0.0820	0.0796	0.0780	0.0753	0.0777	5.86
3	0.0828	0.0817	0.0771	0.0823	0.0822	0.0838	0.0793	0.0766	0.0807	3.14
4	0.2669	0.2504	0.2554	0.2292	0.2538	0.2328	0.2499	0.2325	0.2464	5.09
5	0.1601	0.1653	0.1640	0.1706	0.1706	0.1832	0.1731	0.1728	0.1700	3.88
6	0.1685	0.1981	0.1753	0.1783	0.1837	0.1838	0.1759	0.1781	0.1802	4.53
7	0.1955	0.1972	0.2059	0.1877	0.1883	0.1858	0.1859	0.1980	0.1930	3.51
8	0.2376	0.2714	0.2695	0.2751	0.2802	0.2666	0.2740	0.2612	0.2670	4.61
9	0.2603	0.2466	0.2584	0.2633	0.2506	0.2464	0.2397	0.1944	0.2450	8.38
10	0.1859	0.1857	0.2085	0.1919	0.2145	0.1985	0.2004	0.1842	0.1962	5.37
11	0.1642	0.1704	0.1660	0.1630	0.1560	0.1770	0.1738	0.1634	0.1667	3.77
12	0.2580	0.2633	0.2673	0.2566	0.2734	0.2659	0.2447	0.2779	0.2634	3.69

Table 2: Further calculations for Lot 9. Replicate 8 was excluded from the calculation of the mean.

Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
0.2603	0.2466	0.2584	0.2633	0.2506	0.2464	0.2397	0.1944
Rep 9	Rep 10	Rep 11	Rep 12	Rep 13	Rep 14	Rep 15	Rep 16
0.2703	0.2716	0.2612	0.2656	0.2526	0.2539	0.2592	0.2148
std dev	std dev X 2	mean - sdx2		mean + sdx2		new mean	
0.0196	0.0393	0.2113		0.2898		0.2543	

#### References:

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

<https://www.prairiemoon.com/carex-pseudocyperus-false-bristly-sedge-prairie-moon-nursery.html>

<https://michiganflora.net/images.aspx?id=1034>

**Respectfully submitted:** Kathy Mathiason, SDSU Seed Testing Laboratory, Box 2207A, Brookings, SD 57007. 605-688-6636 [katherine.mathiason@sdsu.edu](mailto:katherine.mathiason@sdsu.edu)

**Date Submitted:** October 1, 2020 **Date Amended:** February 20, 2021