



# 2023 South Dakota Oat Variety Trial Results Madison (Organic)

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**Cooperator:** Charlie Johnson  
**Location:** 43.862298°, -97.171856°  
**Soil Type:** Egan-Wentworth complex, 2-6% slopes  
**Previous crop:** soybeans  
**Tillage:** no-till  
**Row spacing:** 8"  
**Seeding Rate:** 1.6 million PLS/acre  
**Fertilizer:**  
-Starter: none  
-Other: none  
**Herbicide:**  
-Burndown: none  
-Post: none  
**Fungicide:** none  
**Date seeded:** 4/27/2023  
**Date harvested:** 8/2/2023

**Note:** This trial site was initiated in 2019 as part of an initiative titled “Wheat and Oat Grains for Productivity in Regenerative, Organic, and Conventional Farming Systems”, sponsored by the General Mills Foundation.



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Table 1. 2023 oat variety performance trial results (average of 4 replications) at Madison, SD. Entries are sorted by overall 3-year yield. Varieties yielding in the top 1/3 of the trial are boldfaced and shaded light blue.

Variety	Height (in)	Lodging* (1-5)	Test Wt (lbs)	2021 (bu/a)	2022 (bu/a)	2023 (bu/a)	2-year (bu/a)	3-year (bu/a)
Deon	31.3	1.0	36.1	not harvested	<b>106.5</b>	<b>74.6</b>	<b>90.6</b>	not available
SD-Buffalo	28.3	1.0	37.2		<b>109.6</b>	67.7	<b>88.7</b>	
MN Pearl	31.0	1.0	36.3	-	105.4	<b>71.1</b>	<b>88.2</b>	-
Hayden	30.0	1.0	36.2	-	<b>108.0</b>	67.6	87.8	-
Goliath	36.7	1.0	37.6	-	99.5	65.3	82.4	-
Warrior	25.0	1.0	36.1	-	100.8	55.8	78.3	-
Shelby427	29.0	1.0	38.0	-	96.2	59.9	78.0	-
Rushmore	29.0	1.0	38.0	-	95.3	60.5	77.9	-
CDC Endure	31.3	1.0	35.9	-	-	<b>76.1</b>	-	-
CS Camden	29.0	1.0	37.9	-	-	<b>74.1</b>	-	-
2018Y1315	25.7	1.0	37.5	-	-	67.5	-	-
2018Y0689	28.7	1.0	37.8	-	-	64.1	-	-
<b>Trial Average#</b>	30.3	1.0	37.1	-	101.7	66.9	84	-
<b>LSD(0.05)†</b>	-	-	2.7	-	9.8	8.3	-	-
<b>C.V.%‡</b>	-	-	-	-	-	7.6	-	-

\* Lodging score: 1, perfectly standing; to 5, completely flat.

# Trial averages may include values from experimental lines that are not reported.

† Value required (≥LSD) to determine if varieties are significantly different from one another.

‡ C.V. is a measure of variability or experimental error, 15% or less is considered acceptable.