2022 South Dakota Oat Variety Trial Results Okaton

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Cooperator:	Henry Roghair
Location:	43.936937°, -100.911031°
Soil Type:	Kirley clay loam, 3-6% slopes
Previous crop:	sunflowers
Tillage:	no-till
Row spacing:	10"
Seeding Rate:	1.2 million PLS/acre
Fertilizer:	
-Starter:	6 gal/acre 10-25-0-5S-.25Z
-Other:	25 gal/acre 28-0-0 mid-row banded
Herbicide:	
-Burndown:	not reported
-Post:	not rreported
Fungicide:	none
Date seeded:	4/21/2022
Date harvested:	7/27/2022

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Table 1. 2022 oat variety performance trial results (average of 4 replications) at Okaton, SD. Entries are sorted by overall 3-year yield. Varieties yielding in the top 1/3 of the trial are bold and shaded light blue.

Variety	Height (in)	Lodging* (1-5)	Test Wt (lbs/bu)	2020 (bu/a)	2021 (bu/a)	2022 (bu/a)	2-year (bu/a)	3-year§ (bu/a)
Esker2020	27	1.0	32.9	**81.0**	not	**111.7**	not	**96.4**
SD-Buffalo	24	1.0	35.2	76.8	harvested	**104.0**	available	**90.4**
Shelby427	27	1.0	36.3	**87.7**	-	89.3	-	**88.5**
Rushmore	27	1.0	35.6	**84.5**	-	90.5	-	**87.5**
Hayden	29	1.0	34.3	71.7	-	**101.4**	-	86.6
MN Pearl	26	1.0	35.3	**90.0**	-	80.3	-	85.1
Warrior	24	1.0	35.6	64.6	-	**105.3**	-	85.0
CS Camden	23	1.0	32.9	67.1	-	90.7	-	78.9
Goliath	32	1.0	36.5	80.9	-	74.5	-	77.7
Deon	28	1.0	35.7	73.8	-	78.2	-	76.0
Saddle	22	1.0	33.7	62.2	-	76.4	-	69.3
Reins	23	1.0	36.1	-	-	90.0	-	-
Trial Average#	26	1.0	35.0	76.4	-	91.0	-	83.8
LSD(0.05)†	-	-	1.8	11.1	-	16.7	-	-
C.V.%‡	-	-	-	10.6	-	12.7	-	-

* Lodging score: 1, perfectly standing; to 5, completely flat.
§Plots were not harvested in 2021 due to drought. The 3-year average is actually an average of 2020 & 2022.
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.