



**SOUTH DAKOTA
STATE UNIVERSITY**
College of Agriculture, Food
and Environmental Sciences

South Dakota State University Extension
South Dakota Agricultural Experiment Station at SDSU

2021 South Dakota Oat Variety Trial Results Brookings

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Location: 44.326691°, -96.801075°
Soil Type: Lamoure silty clay loam, coteau, 0-1% slopes
Previous crop: soybeans
Tillage: no-till
Row spacing: 8"
Seeding Rate: 1.2 million PLS/acre
Fertilizer:
-Starter: 90 lb/acre 30-10-10
-Other: 80-60-40-20S broadcast preplant
Herbicide:
-Burndown: NR
-Post: 1.3 pt/acre WideMatch + 1.5 pt/acre Bison
Fungicide: 7 oz/acre Stratego applied at Feekes 8.0 (flag leaf emerged) on the fungicide-treated plots
Date seeded: 4/15/2021
Date harvested: 8/4/2021
Notes: This trial location is set up with a split-plot design. All varieties are tested with and without fungicide.



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Table 1. 2021 oat variety performance trial results (average of four replications) at Brookings, South Dakota. Entries are sorted by overall three-year yield. Varieties yielding in the top third of the trial are shaded light blue.

Variety	Height (in)	Lodging* (1-5)	Test Wt (lbs)	2019 (bu/a)	2020 (bu/a)	2021 (bu/a)	with fungicide		2-year (bu/a)	3-year (bu/a)
							Test Wt (lbs)	2021 (bu/a)		
Rushmore	28	1.5	34.7	56.5	115.8	97.3	34.8	102.9	109.4	91.7
Warrior	28	1.0	32.5	61.6	108.7	99.1	31.3	103.3	106.0	91.2
MN Pearl	30	2.0	33.8	49.1	99.3	94.5	33.0	107.9	103.6	85.4
CS Camden	27	1.0	28.8	38.0	93.8	115.8	28.6	114.8	104.3	82.2
Deon	31	2.5	33.5	48.1	93.9	111.1	32.7	101.6	97.8	81.2
Saddle	24	1.5	31.3	38.9	102.0	84.5	30.8	85.3	93.6	75.4
Hayden	28	1.0	34.2	17.5	66.6	100.6	33.5	107.3	87.0	63.8
Goliath	36	2.5	33.7	23.8	70.8	95.3	32.5	95.3	83.0	63.3
Shelby427	29	1.3	34.0	28.6	61.3	99.0	33.0	96.4	78.8	62.1
Natty	30	2.5	32.8	21.6	68.5	81.5	33.1	95.9	82.2	62.0
Esker2020	26	1.8	31.7	-	98.9	99.8	32.4	92.8	95.8	-
KWS Ocre	25	2.0	33.2	-	-	107.0	32.3	118.8	-	-
KWS Opaline	24	1.3	33.5	-	-	99.0	32.2	101.6	-	-
Reins	20	1.0	32.9	-	-	92.9	34.2	91.8	-	-
Trial Average#	28	1.7	33.2	39.5	99.2	99.6	32.9	102.2	94.7	75.8
LSD(0.05)†	-	-	1.0	6.8	7.9	5.0	1.2	4.9	-	-
C.V.%‡	-	-	2.1	10.6	5.7	3.6	2.5	3.4	-	-

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

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

† Value required (\geq 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.