



**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 South Shore

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Cooperator: South Dakota State University Northeast Research Farm
Location: 45.106939°, -97.098703°
Soil Type: Kranzburg-Brookings silty clay loams, 0-2% slopes
Previous crop: soybeans
Tillage: conventional
Row spacing: 8"
Seeding Rate: 1.2 million PLS/acre
Fertilizer:
-Starter: 90 lb/acre 30-10-10
-Other: 200-0-50-5Z preplant broadcast
Herbicide:
-Burndown: NR
-Post: 1.25 pt/acre Maestro + 0.5 pt/acre Parity
Fungicide: 7 oz/acre Stratego applied at Feekes 8.0 (flag leaf emerged) on the fungicide-treated plots
Date seeded: 4/22/2021
Date harvested: 8/11/2021
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 South Shore, 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)		
Deon	31.3	4.0	35.6	144.1	142.2	99.1	34.4	87.8	115.0	124.7
CS Camden	26.3	2.8	30.6	131.0	134.3	96.1	29.9	100.8	117.5	122.0
MN Pearl	26.0	3.5	34.1	138.2	146.8	80.6	33.3	80.7	113.7	121.9
Warrior	25.3	2.3	34.1	125.2	129.1	93.9	33.6	109.4	119.2	121.2
Rushmore	29.0	4.3	36.4	146.4	127.3	72.7	36.0	75.5	101.4	116.4
Goliath	36.5	4.8	37.0	119.4	136.4	86.2	36.0	84.6	110.5	113.4
Saddle	23.0	1.8	34.7	129.5	127.6	81.3	34.4	81.6	104.6	112.9
Natty	28.0	4.3	36.8	104.0	124.4	86.7	35.4	93.8	109.1	107.4
Hayden	26.8	1.8	35.5	94.3	120.3	92.8	33.7	101.0	110.7	105.2
Shelby427	29.3	3.0	36.0	87.2	90.3	92.0	35.0	93.6	92.0	90.4
Esker2020	29.5	4.8	31.3	-	127.4	77.7	30.7	79.8	103.6	-
KWS Ocre	26.3	3.5	33.7	-	-	101.7	33.0	90.9	-	-
KWS Opaline	22.3	2.3	35.4	-	-	89.9	35.2	88.5	-	-
Reins	20.8	1.3	35.6	-	-	84.6	35.2	88.7	-	-
Trial Average#	28.4	3.1	34.9	110.7	130.6	91.5	34.2	91.6	108.8	113.6
LSD(0.05)†	-	-	0.8	9.6	9.6	4.3	0.9	6.1	-	-
C.V.%‡	-	-	1.6	5.9	5.2	3.4	2.0	4.7	-	-

* 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.