



2021 South Dakota Oat Variety Trial Results Beresford

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Cooperator: SDSU Southeast Research Farm
Location: 43.044547°, -96.9015013°
Soil Type: Egan-Clarno-Trent complex, 0-2% slopes
Previous crop: soybeans
Tillage: conventional
Row spacing: 7"
Seeding Rate: 1.2 million PLS/acre
Fertilizer:
-Starter: 70 lb/acre 30-10-10
-Other: 80-0-0-10S
Herbicide:
-Burndown: NR
-Post: 1.5 pt/acre MCPA
Fungicide: 7 oz/acre Stratego applied at Feekes 8.0 (flag leaf emerged) on the fungicide-treated plots
Date seeded: 3/29/2021
Date harvested: 7/29/2021
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 Beresford, 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)		
MN Pearl	24	1.0	33.4	111.3	113.3	55.8	34.2	63.7	88.5	96.1
Deon	26	1.0	28.8	116.6	111.7	61.8	29.8	59.0	85.4	95.8
Rushmore	26	1.0	30.9	98.2	105.9	53.0	32.8	62.0	83.9	88.7
Warrior	25	1.0	28.8	114.7	93.2	53.3	29.9	57.7	75.5	88.6
Natty	28	1.0	28.3	77.5	98.5	60.1	28.6	67.8	83.1	81.2
Goliath	30	1.0	29.9	64.8	104.5	56.1	30.6	72.4	88.5	80.6
Saddle	24	1.0	25.6	115.3	70.2	36.4	26.9	48.4	59.3	78.0
CS Camden	24	1.0	29.4	68.6	93.5	-	29.1	67.7	80.6	76.6
Hayden	24	1.0	26.8	54.6	92.2	47.8	29.5	61.2	76.7	69.3
Shelby427	27	1.0	31.9	44.2	90.1	54.7	32.6	62.3	76.2	65.5
Esker2020	25	1.0	29.0	-	91.3	59.3	30.3	61.2	76.3	-
KWS Ocre	22	1.0	33.7	-	-	69.7	32.8	79.5	-	-
KWS Opaline	22	1.0	30.6	-	-	57.9	29.7	66.3	-	-
Reins	21	1.0	34.5	-	-	61.3	35.7	62.9	-	-
Trial Average#	25	1.0	29.6	89.9	100.5	55.8	30.8	62.5	79.5	82.0
LSD(0.05)†	-	-	2.6	13.6	9.5	6.8	2.4	7.6	-	-
C.V.%‡	-	-	6.4	10.8	6.7	8.6	5.5	8.6	-	-

* 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.