

agronomy



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2020 South Dakota Oat Variety Trial Results Pierre

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Cooperator:	Dakota Lakes Research Farm, Dwayne Beck, manager
Location:	44.292829°, -100.006671°
SoilType:	Dorna silt loam
Previous crop:	canola
Tillage:	no-till
Row spacing:	8"
Seeding Rate:	1.2 million PLS/acre
Fertilizer:	
-Starter:	80 lb/acre 30-10-10
-Other:	35 gal/acre 26.6-0-0-2.6S stream bar applied at Feekes 6 (jointing)
Herbicide:	
-Burndown:	2x: 1 pt/acre Roundup + 12 oz.acre 2,4-D (fall & spring applied)
-Post:	none
Fungicide:	None
Date seeded:	3/31/2020
Date harvested:	7/29/2020
Notes:	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. 2020 oat variety performance trial results (average of 4 replications) at Pierre, SD. Entries are sorted by 2-year yields. Varieties yielding in the top 1/3 of the trial are shaded light blue.

Variety	Height (in)	Lodging* (1-5)	Test Wt (lbs)	2018 (bu/a)	2019 (bu/a)	2020 (bu/a)	2-year (bu/a)	3-year (bu/a)
Natty	42.5	2.0	38.0	no	151.3	158.6	154.9	no
Hayden	41.8	3.5	37.4	data	144.2	158.2	151.2	data
Warrior	40.5	1.3	36.5	-	148.0	136.8	142.4	-
CS Camden	40.3	3.8	31.6	-	137.1	143.3	140.2	-
Rushmore	41.0	2.3	38.8	-	139.6	136.1	137.9	-
Saddle	36.5	1.0	37.5	-	158.4	116.3	137.4	-
Shelby427	40.0	1.0	38.2	-	140.1	134.2	137.1	-
Goliath	47.3	3.3	36.0	-	130.9	142.8	136.8	-
Deon	42.3	3.3	36.3	-	130.8	142.3	136.5	-
MN Pearl	42.3	2.3	35.5	-	128.2	142.4	135.3	-
Antigo	37.5	3.0	39.8	-	135.5	117.5	126.5	-
Esker2020	37.3	4.8	33.3	-	-	134.5	-	-
GM2015Y3232	42.0	1.8	35.3	-	-	124.5	-	-
Trial Average#	41	2.4	36.9	-	140.8	139.1	139.7	-
LSD(0.05)†	2.6	0.8	0.7	-	10.9	8.9	-	-
C.V.%‡	-	-	1.4	-	5.5	4.6	-	-

* 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.