



2023 South Dakota Oat Variety Trial Results Pierre

Jonathan Kleinjan | SDSU Extension Agronomist
Melanie Caffé | SDSU Oat Breeder
Kevin Kirby | Agricultural Research Manager
Shawn Hawks | Agricultural Research Manager
Nicholas Hall | Agricultural Research Manager

Cooperator: Dakota Lakes Reserach Farm
Location: 44.292941°, -100.006965°
Soil Type: Dorna silt loam
Previous crop: soybeans
Tillage: no-till
Row spacing: 7"
Seeding Rate: 1.2 million PLS/acre
Fertilizer:
-Starter: none
-Other: 20 gal/acre 26.1-0-0-2.6S steambar applied on 5/18/2023
Herbicide:
-Burndown: 26 oz/acre Roundup + 1 pt/acre Curtail on 9/26/2022
-Post: 1 pt/acre Bromoxynil on 5/17/2023
Fungicide: none
Date seeded: 4/18/2023
Date harvested: 7/28/2023

Note: 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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2023 South Dakota Oat Variety Trial Results Madison (Organic)

Table 1. 2023 oat variety performance trial results (average of 4 replications) at Pierre, SD. Entries are sorted by overall 3-year yield. Varieties yielding in the top 1/3 of the trial are boldfaced and shaded light blue.

| Variety | Height (in) | Lodging* (1-5) | Test Wt (lbs) | 2021 (bu/a) | 2022 (bu/a) | 2023 (bu/a) | 2-year (bu/a) | 3-year (bu/a) |
|-----------------------|-------------|-------------------|------------------|----------------|----------------|----------------|------------------|------------------|
| CS Camden | 35 | 1.0 | 35.4 | 78.2 | 123.2 | 127.5 | 125.4 | 109.6 |
| SD-Buffalo | 35 | 1.0 | 38.0 | 54.9 | 120.7 | 137.9 | 129.3 | 104.5 |
| Hayden | 35 | 1.0 | 37.0 | 58.7 | 124.1 | 118.8 | 121.4 | 100.5 |
| Deon | 39 | 1.0 | 36.7 | 62.4 | 102.1 | 134.3 | 118.2 | 99.6 |
| MN Pearl | 35 | 1.7 | 36.9 | 59.6 | 111.8 | 126.9 | 119.4 | 99.5 |
| Warrior | 32 | 1.0 | 36.6 | 55.4 | 120.0 | 121.0 | 120.5 | 98.8 |
| Shelby427 | 37 | 1.0 | 36.4 | 67.8 | 106.1 | 115.2 | 110.6 | 96.4 |
| Goliath | 45 | 2.3 | 37.8 | 61.1 | 103.6 | 121.0 | 112.3 | 95.2 |
| Rushmore | 34 | 1.0 | 37.7 | 60.9 | 93.5 | 125.0 | 109.2 | 93.1 |
| 2018Y0689 | 33 | 1.0 | 33.9 | - | - | 124.1 | - | - |
| CDC Endure | 36 | 1.0 | 35.2 | - | - | 123.5 | - | - |
| 2018Y1315 | 28 | 1.0 | 32.8 | - | - | 110.5 | - | - |
| Trial Average# | 36 | 1.1 | 37.1 | 62.2 | 113.9 | 124.7 | 118.5 | 99.7 |
| LSD(0.05)† | - | - | 0.8 | 11.6 | 15.9 | 13.8 | - | - |
| C.V.%‡ | - | - | - | 13.4 | 10.0 | 7.9 | - | - |

* 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.