

agronomy



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SOUTH DAKOTA STATE UNIVERSITY® AGRONOMY, HORTICULTURE, & PLANT SCIENCE DEPARTMENT

2019 South Dakota Winter Wheat Variety Trial Results Pierre

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|-----------------|---|--|--|--|--|--|
| Location: | (44.292342°, -100.002725°) | | | | | |
| Soil Type: | Dorna Silt Loam | | | | | |
| Previous crop: | Soybean | | | | | |
| Tillage: | No-till | | | | | |
| Row spacing: | 8" | | | | | |
| Seeding Rate: | 1.2 million PLS/acre | | | | | |
| Fertilizer: | | | | | | |
| -Starter: | 10 gal/acre 10-34-0 | | | | | |
| -Other: | 30 gal/acre 26.6-0-0-2.6S stream-bar applied on 6/30/2019 | | | | | |
| Herbicide: | | | | | | |
| -Burndown: | NR | | | | | |
| -Post: | 0.9 pint/acre Bromax | | | | | |
| Fungicide: | None | | | | | |
| Date seeded: | 9/28/2018 | | | | | |
| Date harvested: | 7/23/2019 | | | | | |

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Table 1. 2019 winter wheat 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 each trial are shaded light blue.

| Variety | Height (in) | Lodging* (1-5) | Test Wt (Ibs) | Protein % | 2017 (bu/a) | 2018 | 2019 (bu/a) | 2-year (bu/a) | 3-year (bu/a) |
|----------------------|----------------|-------------------|------------------|--------------|----------------|----------------|----------------|------------------|------------------|
| Ideal | 31 | 1.3 | 61.9 | 13.9 | (Du/a) 62.2 | (bu/a) 65.4 | (Du/a) 77.8 | (Du/a) 71.6 | (bu/a) 68.4 |
| Ideal SY Monument | 31 | 1.3 | 58.8 | 13.9 | 62.2 54.3 | 55.7 | 79.3 | 67.5 | 63.1 |
| | 33 | 1.0 | 50.0 59.6 | 13.3 | 54.5 55.3 | 55.7 51.6 | 81.0 | 67.5 66.3 | 62.6 |
| Thompson | 30 | 1.0 | 59.8 59.8 | 13.0 | | 51.6 | 70.8 | | 62.6 61.7 |
| Redfield Oahe | 30 | | | | 55.5 53.8 | | 70.8 | 64.9 65.0 | |
| | | 2.0 | 60.8 | 13.6 | | 53.6 | | | 61.3 |
| Cowboy | 34 | 1.3 | 59.1 | 12.8 | 55.5 | 52.3 | 73.4 | 62.8 | 60.4 |
| SD14115-5 | 31 | 1.3 | 59.4 | 13.6 | 58.1 | 46.6 | 76.4 | 61.5 | 60.4 |
| SY Sunrise | 25 | 1.7 | 59.4 | 12.9 | 58.7 | 51.2 | 71.1 | 61.1 | 60.3 |
| Overland | 32 | 1.7 | 60.1 | 13.8 | 52.3 | 48.5 | 79.8 | 64.1 | 60.2 |
| Langin | 28 | 3.0 | 58.6 | 12.6 | 60.1 | 47.4 | 72.2 | 59.8 | 59.9 |
| Lyman | 33 | 2.7 | 59.8 | 15.3 | 48.4 | 61.1 | 69.6 | 65.4 | 59.7 |
| Avery | 31 | 3.7 | 58.4 | 12.5 | 60.7 | 57.1 | 61.0 | 59.0 | 59.6 |
| Keldin | 33 | 1.7 | 59.6 | 14.1 | 51.2 | 55.6 | 69.9 | 62.7 | 58.9 |
| SD14113-3 | 31 | 1.7 | 59.7 | 13.9 | 54.5 | 43.9 | 77.8 | 60.8 | 58.7 |
| SY Wolf | 28 | 1.0 | 59.5 | 13.7 | 44.8 | 50.8 | 76.2 | 63.5 | 57.3 |
| Expedition | 31 | 2.3 | 59.9 | 13.8 | 54.5 | 48.1 | 66.4 | 57.3 | 56.3 |
| Wesley | 30 | 1.0 | 59.1 | 14.0 | 48.6 | 55.3 | 63.0 | 59.2 | 55.6 |
| LCS Mint | 30 | 1.7 | 60.7 | 13.3 | 39.3 | 58.4 | 60.3 | 59.4 | 52.7 |
| Alice | 27 | 2.3 | 59.0 | 13.5 | 38.7 | 53.1 | 58.1 | 55.6 | 50.0 |
| WB-Grainfield | 30 | 2.0 | 59.7 | 13.5 | 42.2 | 37.7 | 66.5 | 52.1 | 48.8 |
| SY 517 CL2 | 28 | 2.0 | 62.2 | 13.8 | 35.2 | 38.2 | 66.2 | 52.2 | 46.5 |
| WB4462 | 32 | 1.0 | 59.8 | 13.2 | - | 71.1 | 79.6 | 75.4 | - |
| LCS Chrome | 31 | 1.0 | 59.5 | 14.2 | - | 43.6 | 71.5 | 57.5 | - |
| NHH144913-3 | 29 | 1.0 | 55.2 | 14.7 | - | 35.3 | 64.5 | 49.9 | - |
| WB4595 | 30 | 1.0 | 61.1 | 13.3 | - | - | 85.4 | - | - |
| SY Wolverine | 27 | 1.0 | 60.4 | 13.6 | - | - | 77.0 | - | - |
| NW13493 | 31 | 2.3 | 60.9 | 13.4 | - | - | 76.6 | - | - |
| Canvas | 28 | 2.3 | 59.7 | 13.2 | - | - | 73.4 | - | - |
| Trial Average# | 31 | 1.6 | 59.8 | 13.6 | 50.4 | 51.5 | 72.8 | 61.4 | 58.2 |
| LSD (0.05)† | 2.7 | 0.8 | 0.9 | 0.5 | 9.7 | 12.0 | 7.9 | - | - |
| C.V. %‡ | - | - | 1.1 | 2.4 | 13.9 | 15.3 | 7.8 | - | - |

* 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.