



2019 South Dakota Winter Wheat Variety Trial Results Onida

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Cooperator: Tom Young
Location: 44.707730°, -100.393140°
Soil Type: Agar silt loam, 0-2% slopes
Previous crop: spring wheat
Tillage: No-till
Row spacing: 8"
Seeding Rate: 1.2 million PLS/acre
Fertilizer:
 -Starter: 10 gal/acre 10-34-0
 -Other: 250 lb/acre 46-0-0
Herbicide:
 -Burndown: NR
 -Post: 0.625 pt/acre Comet (fluroxypur) + 0.6 oz/acre Rapport (thifensulfuron + tribenuron)
Fungicide: 3.0 oz/acre Pyrac 2EC (pyraclostrobin)
Date seeded: 9/25/2018
Date harvested: 8/1/2019

Table 1. 2019 winter wheat variety performance trial results (average of 4 replications) at Onida, SD. Entries are sorted by overall 3-year yield. Varieties yielding in the top 1/3 of the trial are shaded light blue.

| Variety | Height (in) | Lodging* (1-9) | Test Wt (lbs) | Protein % | 2017 (bu/a) | 2018 (bu/a) | 2019 (bu/a) | 2-year (bu/a) | 3-year (bu/a) |
|-----------------------|-------------|----------------|---------------|-----------|-------------|-------------|-------------|---------------|---------------|
| Langin | 30 | 3.7 | 60.0 | 12.0 | 68.0 | hailed | 82.9 | NA | 75.4 |
| Avery | 33 | 4.0 | 60.2 | 11.7 | 60.2 | out‡ | 79.7 | - | 70.0 |
| SY Sunrise | 29 | 4.0 | 59.9 | 12.5 | 55.2 | - | 84.1 | - | 69.7 |
| SD14115-5 | 33 | 1.7 | 61.3 | 13.2 | 55.8 | - | 83.0 | - | 69.4 |
| Ideal | 36 | 1.7 | 60.6 | 12.2 | 56.5 | - | 81.8 | - | 69.1 |
| Keldin | 34 | 1.7 | 61.7 | 12.6 | 57.3 | - | 79.9 | - | 68.6 |
| WB-Grainfield | 32 | 3.7 | 59.4 | 12.6 | 55.3 | - | 78.9 | - | 67.1 |
| Thompson | 36 | 1.0 | 60.4 | 13.6 | 54.3 | - | 77.5 | - | 65.9 |
| Overland | 37 | 2.3 | 60.0 | 13.1 | 49.3 | - | 80.9 | - | 65.1 |
| LCS Mint | 34 | 3.0 | 60.1 | 12.3 | 51.6 | - | 77.6 | - | 64.6 |
| SY Wolf | 32 | 1.0 | 62.0 | 13.2 | 47.3 | - | 81.5 | - | 64.4 |
| Oahe | 38 | 3.3 | 61.5 | 13.1 | 49.2 | - | 79.5 | - | 64.4 |
| Redfield | 33 | 1.7 | 61.0 | 12.9 | 46.9 | - | 77.9 | - | 62.4 |
| Expedition | 34 | 2.7 | 61.1 | 13.5 | 49.5 | - | 74.9 | - | 62.2 |
| SD14113-3 | 33 | 1.3 | 60.5 | 12.5 | 47.1 | - | 75.9 | - | 61.5 |
| SY Monument | 33 | 1.0 | 59.2 | 11.9 | 42.4 | - | 80.3 | - | 61.4 |
| SY 517 CL2 | 29 | 1.0 | 62.3 | 12.9 | 42.1 | - | 76.4 | - | 59.3 |
| Alice | 30 | 2.3 | 60.2 | 13.9 | 48.3 | - | 68.2 | - | 58.3 |
| Lyman | 35 | 3.0 | 61.0 | 14.8 | 48.0 | - | 67.1 | - | 57.6 |
| Wesley | 33 | 1.3 | 59.0 | 13.5 | 40.0 | - | 74.5 | - | 57.2 |
| Cowboy | 34 | 3.0 | 60.6 | 11.7 | 34.3 | - | 78.5 | - | 56.4 |
| NW13493 | 33 | 5.0 | 61.4 | 13.3 | - | - | 82.3 | - | - |
| WB4595 | 34 | 1.7 | 62.5 | 12.1 | - | - | 81.8 | - | - |
| SY Wolverine | 29 | 1.0 | 61.0 | 12.5 | - | - | 81.5 | - | - |
| NHH144913-3 | 31 | 1.0 | 58.6 | 13.1 | - | - | 80.0 | - | - |
| WB4462 | 33 | 3.3 | 60.7 | 12.7 | - | - | 79.9 | - | - |
| Canvas | 30 | 3.0 | 61.5 | 12.5 | - | - | 78.9 | - | - |
| LCS Chrome | 34 | 3.0 | 60.4 | 13.9 | - | - | 74.9 | - | - |
| Trial Average# | 34 | 2.3 | 60.7 | 12.8 | 49.5 | - | 78.7 | - | 64.3 |
| LSD (0.05)† | 2.0 | 1.1 | 1.1 | 0.5 | 14.8 | - | 5.5 | - | - |
| C.V. %‡ | - | - | 13.3 | 3.0 | 18.4 | - | 5.0 | - | - |

* Lodging score: 1, perfectly standing; to 9, 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.

§The trial location was hailed out in 2018. Three-year yields are an average of 2017 and 2019.