



**SOUTH DAKOTA  
STATE UNIVERSITY**  
College of Agriculture, Food  
and Environmental Sciences

South Dakota State University Extension  
South Dakota Agricultural Experiment Station at SDSU

# 2024 South Dakota Winter Wheat Variety Trial Results Vivian

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**Cooperator:** Ryan Larson, c/o Logan Reuman

**Location:** 43.978714°, -100.185329°

**Soil Type:** Millboro silty clay, 3-6% slopes

**Previous crop:** oats

**Tillage:** no-till

**Row spacing:** 8"

**Seeding Rate:** 1.2 million PLS/acre

**Fertilizer:**

- Starter:
- Other: 120 lb/acre of N as urea

**Herbicide:**

- Burndown: 6 oz Pizarro, 32 oz Glyphosate
- Post: 10 oz/acre Avaris, 16 oz/acre Widematch, 8 oz/acre Wildcard

**Fungicide:**

**Date seeded:** 10/2/2023

**Date harvested:** 7/24/2024



# 2024 South Dakota Winter Wheat Variety Trial Results Vivian

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Table 1. Performance trial results for winter wheat varieties (average of 4 replications) conducted in 2024 at Vivian, SD. Entries are sorted by overall 3-year yield. Varieties yielding in the top 1/3 of the trial are bold and shaded light blue.

| Variety               | Height (inches) | Lodging* (1-5) | Test Wt (lbs) | Protein % | 2022 (bu/a)# | 2023 (bu/a) | 2024 (bu/a) | 2-year (bu/a) | 3-year (bu/a) |
|-----------------------|-----------------|----------------|---------------|-----------|--------------|-------------|-------------|---------------|---------------|
| WB4422                | 31.5            | 2.0            | 61.4          | 11.3      | <b>105.9</b> | <b>60.5</b> | <b>80.1</b> | <b>70.3</b>   | <b>82.2</b>   |
| AP Clair              | 31.3            | 1.3            | 61.5          | 11.4      | <b>103.4</b> | 58.6        | <b>80.7</b> | 69.6          | <b>80.9</b>   |
| SY Wolverine          | 28.5            | 1.3            | 60.2          | 10.6      | <b>104.5</b> | 57.4        | 77.1        | 67.2          | <b>79.7</b>   |
| SD Pheasant           | 34.3            | 2.0            | 61.2          | 11.1      | 87.8         | <b>64.2</b> | <b>83.9</b> | <b>74.0</b>   | <b>78.6</b>   |
| CP7909                | 32.5            | 2.5            | 60.2          | 10.7      | <b>100.2</b> | 53.4        | <b>82.0</b> | 67.7          | <b>78.5</b>   |
| CP7017AX              | 32.5            | 2.0            | 60.7          | 10.7      | <b>91.1</b>  | 59.2        | <b>84.7</b> | <b>71.9</b>   | <b>78.3</b>   |
| WB4309                | 32.8            | 1.8            | 59.7          | 11.2      | <b>96.2</b>  | 58.5        | 78.2        | 68.3          | <b>77.6</b>   |
| Byrd CL Plus          | 36.0            | 1.5            | 59.8          | 10.4      | 89.3         | <b>59.3</b> | <b>82.0</b> | <b>70.7</b>   | 76.9          |
| SD Andes              | 32.8            | 1.0            | 61.6          | 11.2      | 84.0         | <b>66.7</b> | <b>79.4</b> | <b>73.0</b>   | 76.7          |
| Draper                | 33.8            | 1.0            | 60.0          | 11.3      | 86.1         | 58.2        | <b>82.3</b> | <b>70.3</b>   | 75.6          |
| Kivari AX             | 35.3            | 2.5            | 58.8          | 9.8       | 84.2         | 56.1        | <b>85.5</b> | <b>70.8</b>   | 75.3          |
| Winner                | 33.3            | 1.0            | 60.8          | 10.9      | 86.9         | 56.5        | <b>81.3</b> | 68.9          | 74.9          |
| Ideal                 | 33.5            | 1.5            | 60.7          | 10.9      | 79.1         | <b>62.9</b> | <b>82.4</b> | <b>72.7</b>   | 74.8          |
| SD Midland            | 35.0            | 1.0            | 60.3          | 10.5      | 87.0         | <b>60.1</b> | 77.2        | 68.6          | 74.8          |
| CP7869                | 31.8            | 2.0            | 60.6          | 10.9      | 84.5         | <b>60.5</b> | 76.5        | 68.5          | 73.8          |
| Expedition            | 35.3            | 2.0            | 61.2          | 11.3      | 86.6         | 52.3        | 79.3        | 65.8          | 72.8          |
| AP Bigfoot            | 30.8            | 1.3            | 61.0          | 11.9      | 88.8         | 51.7        | 77.0        | 64.3          | 72.5          |
| LCS Helix AX          | 29.8            | 1.8            | 60.6          | 11.3      | <b>89.6</b>  | 53.8        | 73.9        | 63.8          | 72.4          |
| Crescent AX           | 30.8            | 2.3            | 61.0          | 11.2      | 89.3         | 49.7        | 78.0        | 63.8          | 72.3          |
| LCS Chrome            | 35.0            | 1.5            | 60.9          | 11.8      | 87.3         | 55.9        | 72.8        | 64.3          | 72.0          |
| MS Maverick           | 32.5            | 2.0            | 61.0          | 11.5      | 79.9         | 54.2        | 80.9        | 67.5          | 71.6          |
| WB4510CLP             | 32.3            | 1.0            | 61.7          | 10.6      | 74.2         | <b>64.4</b> | 74.9        | 69.7          | 71.2          |
| CP7266AX              | 33.5            | 2.0            | 60.0          | 11.0      | 86.5         | 49.7        | 75.4        | 62.6          | 70.5          |
| MS Sundown            | 34.8            | 2.0            | 60.6          | 11.2      | -            | 54.2        | 83.5        | 68.8          | -             |
| SY Wolf               | 31.3            | 1.0            | 60.7          | 11.5      | -            | 54.5        | 74.7        | 64.6          | -             |
| AP 24AX               | 35.3            | 1.0            | 60.1          | 10.5      | -            | -           | 89.8        | -             | -             |
| LCS Warbird AX        | 32.3            | 2.3            | 61.1          | 11.2      | -            | -           | 82.1        | -             | -             |
| LCS Julep             | 32.0            | 1.3            | 61.8          | 11.2      | <b>99.1</b>  | -           | 81.5        | -             | -             |
| CO18042RA             | 32.8            | 2.3            | 59.1          | 10.2      | -            | -           | 80.5        | -             | -             |
| 21Nord-160            | 33.8            | 1.0            | 59.2          | 10.8      | -            | -           | 75.8        | -             | -             |
| LCS Jet               | 27.5            | 1.0            | 56.2          | 12.1      | -            | -           | 61.3        | -             | -             |
| LCS Missile           | 26.8            | 1.0            | 52.9          | 13.4      | -            | -           | 43.9        | -             | -             |
| <b>Trial Average#</b> | 32.6            | 1.5            | 60.2          | 11.0      | 89.8         | 57.5        | 78.9        | 68.6          | 75.6          |
| <b>LSD (0.05) †</b>   | 2.0             | 0.5            | 0.9           | 0.5       | 9.0          | 6.3         | 6.7         | -             | -             |
| <b>C.V. %‡</b>        | 4.5             | 21.5           | 1.0           | 3.4       | 7.2          | 7.9         | 6.1         | -             | -             |

\* Lodging score: 1, perfectly standing; to 5, completely flat.

# Corrected to 13% moisture. Note: 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.