



UNIVERSITY of NEBRASKA
LINCOLN

Cheyenne County Rainfed 2024 Winter Wheat Variety Trial

| Name | Company | Yield (bu/ac) ¹ | Test Weight (lb/bu) | Protein (%) ² | Plant Height (in) | Grain Weight (1000 seeds/lb) |
|----------------------|---|----------------------------|---------------------|--------------------------|-------------------|------------------------------|
| WB4422 | WestBred | 74.7 | 56.9 | 10.5 | 32.3 | 17.6 |
| Whistler | PlainsGold | 72.6 | 55.2 | 10.6 | 33.2 | 19.0 |
| LCS Atomic AX | Limagrain | 71.3 | 56.8 | 9.9 | 32.3 | 15.4 |
| CO18042RA | PlainsGold | 70.7 | 56.9 | 10.0 | 30.9 | 18.8 |
| MS Maverick | Meridian Seeds | 70.7 | 56.6 | 10.7 | 32.6 | 17.9 |
| WB4445CLP | WestBred | 70.2 | 56.3 | 11.4 | 32.3 | 18.2 |
| WB4595 | WestBred | 69.6 | 58.9 | 9.8 | 31.5 | 17.3 |
| Canvas | PlainsGold | 69.6 | 57.7 | 10.2 | 30.5 | 19.0 |
| AP 24AX | AgriPro | 69.6 | 54.9 | 10.3 | 34.9 | 18.4 |
| AP Sunbird | AgriPro | 68.6 | 59.6 | 10.4 | 32.3 | 16.2 |
| LCS Julep | Limagrain | 68.5 | 57.3 | 10.6 | 32.5 | 17.0 |
| CP7017AX | Croplan | 68.5 | 58.1 | 10.9 | 31.1 | 20.4 |
| WB4792 | WestBred | 68.4 | 57.2 | 9.9 | 32.8 | 17.5 |
| NE19412 | UNL | 68.1 | 55.6 | 10.8 | 33.7 | 17.6 |
| Robidoux | NuHorizon Genetics | 68.1 | 57.6 | 10.8 | 31.9 | 19.4 |
| AP Roadrunner | AgriPro | 67.7 | 54.3 | 10.8 | 32.2 | 18.8 |
| LCS Helix AX | Limagrain | 67.0 | 57.5 | 10.0 | 31.3 | 16.6 |
| Steamboat | Crop Research Foundation of Wyoming, Inc. | 66.6 | 57.7 | 10.4 | 32.7 | 18.4 |
| SY Legend CL2 | AgriPro | 66.5 | 55.6 | 10.6 | 31.1 | 19.0 |
| NHH19668 | UNL | 66.4 | 57.2 | 11.1 | 32.7 | 17.6 |
| Crescent AX | PlainsGold | 66.2 | 57.4 | 9.8 | 33.6 | 17.6 |
| NE18455 | UNL | 66.1 | 58.5 | 9.5 | 32.6 | 19.2 |
| AP Solid | AgriPro | 66.1 | 56.7 | 10.7 | 31.5 | 20.8 |
| WB4347 | WestBred | 65.9 | 58.4 | 10.2 | 32.5 | 16.4 |
| NE18435 | UNL | 65.4 | 55.8 | 10.2 | 31.2 | 19.4 |
| NHH19651 | UNL | 64.9 | 56.6 | 11.3 | 35.0 | 17.7 |
| NEB145-12 | UNL | 64.7 | 55.4 | 10.8 | 33.4 | 16.5 |
| WB4510CLP | WestBred | 64.6 | 57.0 | 10.6 | 32.2 | 18.6 |
| NE17544 | UNL | 64.1 | 55.8 | 11.6 | 34.3 | 19.9 |
| NE19454 | UNL | 64.0 | 55.4 | 11.3 | 31.1 | 18.8 |

¹ Yield values corrected to 12% moisture content. Bolded values indicate highest LSD grouping.

² Protein corrected to 14% moisture content, the correction factor used in analytical standards.

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|--------------------|-------------------------|------|-------------|-------------|------|------|
| LCS Radar | Limagrain | 63.5 | 55.7 | 11.2 | 30.2 | 19.6 |
| AP Bigfoot | AgriPro | 63.5 | 58.2 | 11.1 | 30.5 | 19.5 |
| NE16562 | UNL | 63.4 | 55.4 | 10.9 | 31.3 | 18.1 |
| NE17441 | UNL | 62.9 | 57.2 | 11.0 | 31.9 | 18.2 |
| Settler CL | NuHorizon Genetics | 62.7 | 56.7 | 9.8 | 32.2 | 16.8 |
| AR Iron Eagle 22AX | Armor | 62.7 | 58.8 | 10.2 | 30.2 | 19.2 |
| Ruth | NuHorizon Genetics | 61.6 | 57.4 | 11.0 | 33.3 | 18.3 |
| Wesley | Husker Genetics | 61.2 | 54.7 | 11.4 | 29.7 | 18.3 |
| Windom SF | PlainsGold | 60.5 | 56.9 | 10.7 | 31.1 | 18.3 |
| NE19455 | UNL | 60.5 | 57.1 | 12.5 | 33.2 | 19.1 |
| NE Prism CLP | NuHorizon Genetics | 60.5 | 56.1 | 11.9 | 32.0 | 22.3 |
| NE19590 | UNL | 60.4 | 56.2 | 9.8 | 31.6 | 18.5 |
| Amplify SF | PlainsGold | 59.7 | 58.3 | 11.0 | 31.6 | 17.8 |
| Kivari AX | PlainsGold | 59.5 | 56.0 | 10.1 | 32.0 | 18.2 |
| AR Iron Eagle 33AX | Armor | 58.8 | 56.6 | 11.1 | 31.6 | 20.1 |
| NI17410 | UNL | 58.0 | 56.8 | 11.3 | 32.4 | 17.6 |
| WB4483 | WestBred | 57.5 | 55.5 | 11.2 | 29.9 | 20.8 |
| LCS Steel AX | Limagrain | 57.5 | 56.0 | 11.1 | 31.8 | 20.2 |
| CP7266AX | Croplan | 57.4 | 56.2 | 10.5 | 32.0 | 19.7 |
| NSF22115 | UNL | 57.4 | 56.4 | 11.1 | 30.3 | 18.4 |
| Pronghorn | NuHorizon Genetics | 57.2 | 58.8 | 11.8 | 35.9 | 18.6 |
| NW15443 | UNL | 57.2 | 56.3 | 11.6 | 33.9 | 17.6 |
| NSF22102 | UNL | 56.5 | 56.8 | 11.0 | 33.3 | 18.7 |
| NE19619 | UNL | 55.9 | 54.9 | 12.2 | 35.2 | 20.5 |
| NSF22113 | UNL | 55.1 | 56.3 | 11.6 | 31.9 | 19.0 |
| CP7220 | Croplan | 55.0 | 55.9 | 11.0 | 29.3 | 15.1 |
| WB4444 | WestBred | 54.6 | 54.8 | 11.8 | 30.5 | 21.4 |
| WB4733CLP | WestBred | 52.3 | 55.8 | 12.0 | 27.5 | 23.1 |
| Turkey | Check | 47.1 | 55.1 | 12.3 | 36.5 | 19.3 |
| Scout 66 | Check | 44.3 | 56.6 | 11.3 | 34.9 | 18.2 |
| | | | | | | |
| | Standard Error | 4.0 | 1.1 | 0.7 | 1.0 | 1.3 |
| | LSD³ | 6.6 | 1.8 | 1.2 | 1.6 | 2.3 |
| | Mean⁴ | 66.2 | 56.6 | 10.9 | 32.2 | 18.6 |
| | CV⁵ | 6.0 | 2.0 | 6.6 | 3.1 | 7.2 |
| | Reps | 4 | 4 | 2 | 4 | 2 |

³ For differences between varieties that are equal to or greater than the LSD value, the chance that the difference is significant is 90%.

⁴ Mean performance of all plots in the trial.

⁵ Coefficient of Variation (CV) indicates the quality of a trial, and lower than 15 indicates a high quality trial. For CV>15, there was higher than expected variability in the field or the data and the results should be used with caution.

SITE INFORMATION

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|-----------------------|--|
| Collaborator: | UNL High Plains Ag Lab and Jacob Hansen |
| Planting Date: | 9/19/2023 |
| Seeding Rate: | 900,000 seeds/a |
| Harvest Date: | 7/13/2024 |
| Fertility: | 50 lb/a N streamed on pre-plant; 50 lb/a 40 Rock in-furrow at planting; additional 10 lb/a N with spring herbicide application |
| Herbicide/Fungicides: | Zidua 4/4/2024; 6 oz/a 2,4D LV6 in spring; Prosaro for stripe rust |
| Soil Type: | Rosebud loam, Sidney-Canyon complex, Duroc loam |
| GPS: | 41.231477, -103.002897 |
| Planting Info: | Drilled 1.5" into good soil moisture in tilled millet fallow with a no-till double disk drill on 10" centers. |
| Notes on Trial: | Excellent emergence and early stand. One small hail event occurred in early grain fill but had minimal to zero impacts on final yield. |

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