



UNIVERSITY of NEBRASKA
LINCOLN

Cheyenne County Rainfed 2022 Winter Wheat Variety Trial

Name	Company	Yield (bu/ac) ¹	Test Weight (lb/bu)	Protein (%) ²	Plant Height (in)	Seed Weight (1000 seeds/lb)	Freeze Damage Score ³	Sawfly Damage Score ⁴
WB4595	WestBred	31.8	58.2	14.9	25.3	20.5	5.1	5.2
WB4483	WestBred	30.6	52.9	17.4	23.4	28.3	4.4	5.0
LCS Steel AX	Limagrain Cereal Seeds	30.5	53.4	15.4	24.9	25.3	4.1	6.1
Fortify SF	PlainsGold	30.4	55.1	15.5	24.5	24.1	4.9	4.4
WB4792	WestBred	30.2	56.7	15.3	25.4	22.6	5.6	5.4
AP Solid	AgriPro	29.8	56.5	16.5	25.0	24.8	4.6	5.1
AP 18AX	AgriPro	28.8	53.6	16.2	25.5	23.2	5.5	6.3
Whistler	PlainsGold	28.6	53.7	16.0	26.2	23.7	4.6	6.9
LCS Helix AX	Limagrain Cereal Seeds	28.1	57.0	15.8	23.3	20.1	5.7	5.2
MS Maverick	Meridian Seeds	27.5	55.3	16.7	25.6	18.2	5.2	5.8
AP Roadrunner	AgriPro	27.5	52.0	17.3	24.7	22.7	5.8	5.3
LCS Runner	Limagrain Cereal Seeds	27.0	56.2	16.2	23.4	26.0	5.4	6.0
Goodstreak	Husker Genetics	26.9	55.0	17.5	27.9	22.8	4.0	6.4
CP7017AX	CROPLAN	26.7	55.6	15.7	23.9	22.3	4.9	5.6
KS Hamilton	Kansas Wheat Alliance	26.6	55.3	17.0	25.2	22.9	6.5	5.1
NE17544	UNL-Experimental	26.6	55.4	16.7	25.7	22.2	4.9	5.8
Amplify SF	PlainsGold	26.4	55.2	17.0	24.9	22.2	5.9	4.2
Epoch	NuHorizon	26.3	52.1	16.8	22.0	23.5	5.5	4.8
MS Iceman	Meridian Seeds	26.3	55.5	17.8	23.6	20.6	5.3	6.7
Langin	PlainsGold	26.2	54.9	16.2	23.6	18.5	6.2	6.1
Pronghorn	Husker Genetics	25.9	55.1	16.7	25.2	21.6	4.3	6.5

¹ Yield values corrected to 12% moisture. Bolded values indicate highest LSD grouping. **Reminder!** Plot yields are often higher than surrounding field because area between plots provides more soil moisture, but the relative performance and differences are accurate.

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

³ Freeze damage rated about 1 month after the hard freezes at the end of May. A rating of 1 indicates little to no damage while 9 is severe and all of plot anticipated to be lost.

⁴ Sawfly damage rated as in years past where 1 indicates little to no cutting of stems/lodging while 9 indicates a plot that is completely cut/lodged.

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Spur	AgriPro	25.6	51.1	16.7	25.4	24.0	5.2	5.1
NE16562	UNL-Experimental	25.5	52.6	17.7	25.2	21.3	6.5	5.5
NE18573	UNL-Experimental	25.4	52.1	17.1	25.0	24.1	5.7	5.9
Robidoux	Husker Genetics	25.1	55.6	17.0	26.3	20.9	4.5	6.5
SY Wolverine	AgriPro	25.0	53.4	17.9	24.9	21.2	5.1	6.0
WB4462	WestBred	24.8	54.2	17.2	27.7	17.3	5.9	5.9
LCS Link	Limagrain Cereal Seeds	24.5	54.3	17.1	25.1	23.8	5.8	5.3
Crescent AX	PlainsGold	24.5	56.3	16.5	25.3	19.3	5.3	5.8
NI17410	UNL-Experimental	24.3	54.5	17.1	24.4	22.6	6.7	5.8
NE17441	UNL-Experimental	24.3	53.2	16.7	23.0	24.5	6.7	6.2
NE19619	UNL-Experimental	24.2	53.1	17.2	24.0	21.8	5.9	6.3
CP7869	CROPLAN	24.1	54.0	17.0	21.7	17.7	6.1	5.1
LCS Photon AX	Limagrain Cereal Seeds	24.0	57.1	16.5	25.8	21.8	5.6	6.6
CPX72166AX	CROPLAN	23.9	54.5	16.0	24.2	22.4	5.7	5.9
WB4309	WestBred	23.9	55.0	18.2	23.1	25.6	5.3	5.5
NHH17612	UNL-Experimental	23.9	56.2	16.3	24.8	21.3	5.3	6.4
Ruth	Husker Genetics	23.6	55.8	17.1	25.0	22.9	4.4	6.0
WB4418	WestBred	23.4	52.5	17.0	24.3	27.7	5.4	6.3
AP Bigfoot	AgriPro	23.4	53.2	17.2	21.9	24.9	4.7	6.7
CP7050AX	CROPLAN	23.2	55.6	17.4	25.0	20.0	6.2	4.9
WB4510CLP	WestBred	22.9	.	16.9	25.0	23.6	4.7	7.4
Turkey	Check	22.7	54.3	17.1	27.4	21.5	4.6	6.8
NHH19668	UNL-Experimental	22.5	52.0	17.9	21.6	22.2	5.8	7.1
Settler CL	Husker Genetics	22.4	53.7	16.5	23.9	23.3	5.6	6.0
SY Legend	AgriPro	22.1	54.2	17.4	23.3	24.3	7.7	5.0
Freeman	Husker Genetics	20.8	53.4	17.2	23.1	19.8	7.2	4.5
NE19590	UNL-Experimental	20.5	53.4	16.3	23.1	23.0	6.9	5.5
Scout 66	Check	20.3	56.1	17.0	26.6	19.1	5.7	6.8

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LCS Atomic AX	Limagrain Cereal Seeds	20.0	55.9	16.8	22.5	19.1	6.7	4.8
NW15443	UNL-Experimental	19.9	49.9	17.0	25.2	22.3	7.0	5.8
Wesley	Husker Genetics	18.8	53.6	17.8	22.2	19.9	5.7	3.5
	Standard Error	2.0	1.0	0.4	1.2	2.6	0.7	0.6
	LSD⁵	3.3	1.7	0.7	2.0	4.4	1.1	1.0
	Mean⁶	25.1	54.5	16.8	24.5	22.3	5.5	5.8
	CV⁷	8.0	1.8	2.4	5.0	11.7	12.5	10.1
	Reps	4	2	2	4	2	4	4

SITE INFORMATION

Collaborator: Jake Hansen, High Plains Ag Lab, Sidney, NE
 Planting Date: September 14, 2021
 Seeding Rate: 900,000 seeds/acre
 Harvest Date: July 18, 2022
 Fertility: 50 lb/a 32-0-0 streamed on Aug. 30, 2021; no in-furrow starter
 Herbicide/Fungicides: 32 oz RoundUp, 8 oz 2,4-D LV6 preplant; 2 pt Prowl H2O and 6 oz 2,4-D LV6 in early May
 Soil Type: Duroc & Alliance loams
 GPS: 41.233281, -103.000321
 Planting Info: Drilled into no-till fallowed millet stubble with double disk no-till drill on 10" centers
 Notes on Trial: Field emerged well despite drought conditions at planting and had excellent early season growth in the spring. Continued drought conditions, freezes in late May during heading, intense heat during grain fill, and wheat stem sawfly pressure impacted yields, which should be used with caution. Freeze damage tended to be correlated to maturity, where earlier varieties were more affected.

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⁵ For differences between varieties that are equal to or greater than the LSD value, the chance that the difference is significant is 90%.

⁶ Mean performance of all entries in the trial.

⁷ 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.