



UNIVERSITY of NEBRASKA
LINCOLN

Cheyenne County Rainfed 2023 Winter Wheat Variety Trial with Intensive Management

Name	Company	Yield (bu/ac) ¹	Test Weight (lb/bu)	Protein (%) ²	Plant Height (in)	Seed Weight (1000 seeds/lb)	Sawfly Damage Score ³
LCS Steel AX	Limagrain	86.0	57.1	9.9	33.1	17.3	4.1
NE17544	UNL-Experimental	82.5	58.8	12.5	33.8	16.0	5.2
ARMOR EXP55	ARMOR	81.3	57.7	11.7	29.2	14.0	6.6
WB4595	WestBred	79.9	59.7	11.9	28.7	17.8	6.5
WB4422	WestBred	79.9	58.7	12.6	29.1	16.2	5.2
Ruth	Husker Genetics	79.6	56.8	11.1	32.3	17.7	5.5
NE16562	UNL-Experimental	78.1	56.3	12.2	30.4	17.7	5.2
WB4510CLP	WestBred	78.0	58.7	11.1	33.3	15.3	6.7
NE17441	UNL-Experimental	77.3	58.8	12.7	31.4	15.9	5.6
Crescent AX	PlainsGold	77.1	58.0	12.2	31.0	16.9	7.1
WB4792	WestBred	76.7	56.0	11.8	31.9	17.4	5.7
NE18455	UNL-Experimental	75.6	54.8	11.5	32.8	19.7	6.1
MS Maverick	Meridian Seeds	75.6	58.8	12.8	29.9	14.0	6.2
AP Bigfoot	AgriPro	75.3	57.5	12.4	30.5	20.4	5.3
ARMOR EXP65AX	ARMOR	74.5	56.4	11.4	30.5	19.1	5.4
Kivari AX	PlainsGold	74.3	55.8	10.8	30.8	17.4	5.2
WB4418	WestBred	74.3	54.5	12.4	24.6	19.0	4.4
Whistler	PlainsGold	74.2	56.0	11.6	31.8	17.4	6.7
WB4483	WestBred	74.1	56.5	11.1	30.9	21.6	5.3
Settler CL	NuPride Genetics	73.9	57.7	11.8	29.7	15.2	5.8
NE19619	UNL-Experimental	73.7	57.1	13.2	34.3	14.6	5.5
Wesley	Husker Genetics	72.6	56.9	13.1	28.4	13.9	3.7
Amplify SF	PlainsGold	72.5	57.9	10.7	31.5	18.0	4.9

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

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

³ Sawfly damage rated where 1 indicates little to no cutting of stems/lodging while 9 indicates a plot that is completely cut/lodged.

Langin	PlainsGold	72.2	56.1	11.8	28.8	17.2	5.7
CP7266AX	CROPLAN	71.3	55.9	11.9	31.4	17.3	4.0
AP 18AX	AgriPro	71.1	55.2	11.9	30.0	19.0	5.1
NHH17450	UNL-Experimental	71.0	57.6	12.7	33.0	17.9	7.0
Steamboat	Crop Research Foundation of WY, Inc.	70.2	57.8	10.5	31.9	16.3	5.8
AAC Goldrush	North Dakota Crop Improvement	70.0	57.8	12.9	33.2	16.8	5.8
MS Sundown	Meridian Seeds	69.5	57.8	11.8	32.3	17.6	6.3
AP Solid	AgriPro	68.2	59.2	12.4	28.8	16.3	3.6
NHH19668	UNL-Experimental	68.1	57.5	12.0	30.3	18.4	6.4
NHH17612	UNL-Experimental	68.0	57.2	12.9	29.4	19.9	5.6
NW15443	UNL-Experimental	67.2	56.5	12.3	31.6	14.0	5.6
SY Legend CL2	AgriPro	67.2	56.6	12.3	29.4	16.3	4.9
Canvas	PlainsGold	66.9	53.9	12.3	29.8	20.3	6.4
CP7017AX	CROPLAN	66.2	57.5	12.2	28.4	17.8	6.7
SY Wolverine	AgriPro	66.1	55.9	12.5	27.2	17.3	4.6
Freeman	Husker Genetics	65.6	55.4	12.5	30.0	18.1	6.3
LCS Julep	Limagrain	62.4	57.0	12.8	30.1	15.4	4.4
WB4733CLP	WestBred	62.3	53.0	12.4	28.6	20.4	4.0
CP7050AX	CROPLAN	60.0	56.6	13.5	28.3	20.2	4.3
Turkey	Check	59.9	56.7	13.4	41.8	16.0	7.1
LCS Atomic AX	Limagrain	59.2	56.4	12.8	27.9	17.2	5.1
Pronghorn	Husker Genetics	57.9	58.4	12.6	37.4	17.9	6.5
Robidoux	Husker Genetics	57.7	54.8	12.2	30.2	19.4	7.0
Fortify SF	PlainsGold	56.1	55.1	11.5	30.4	19.2	4.7
LCS Valiant	Limagrain	55.8	55.3	13.8	26.6	17.9	5.6
Scout 66	Check	52.5	56.8	13.3	38.7	14.5	7.6

	Standard Error	5.7	1.1	0.5	1.4	1.1	0.6
	LSD⁴	9.5	1.8	0.8	2.3	1.9	1.0
	Mean⁵	70.2	56.7	12.2	30.9	17.4	5.6
	CV⁶	8.2	1.9	4.1	4.5	6.3	NA
	Reps	4	4	2	4	2	4

SITE INFORMATION

Collaborator: Jake Hansen, High Plains Ag Lab, Sidney, NE
 Planting Date: September 20, 2022
 Seeding Rate: 900,000 seeds/acre
 Harvest Date: July 26, 2023
 Fertility: 50 lb/a 32-0-0 streamed on Aug. 30, 2021; 30 lb/a P as 40 Rock in-furrow at planting; 50 lb N/a applied with streamer nozzles after herbicide application; 10 lb N/a with 2,4-D in April; additional 30 lb N/a top-dressed in April.
 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: Alliance loam
 GPS: 41.235927, -103.002296
 Planting Info: Drilled 1-1.25" into no-till fallowed corn stubble with double disk no-till drill on 10" centers
 Notes on Trial: Dusted into fairly dry soil in fall, decent fall stand and winter survival. Tillered well in spring and had rains during pollination and grain filling, helping to increase yields. Late season rains decreased test weight. Scab (FHB) observed in trial as well as in the area along with some stem rust. Leaf rust pressure moderately low and very little WSMV observed. Surrounding field was planted with Ruth and yielded approximately 60 bu/a.

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⁴ For differences between varieties that are equal to or greater than the LSD value, the chance that the difference is significant is 90%.

⁵ Mean performance of all entries in the trial.

⁶ 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.