

# Summary of 2023 Irrigated Winter Wheat Variety Performance Results

Brand/Source	Market Class	Variety <sup>a</sup>	2023 Multi-Location Average						2023 Individual Trial Yield <sup>b</sup>		
			Yield <sup>b</sup> bu/ac	Yield percent of average	Test Weight lb/bu	Protein <sup>c</sup> percent	Lodging score (1-9) <sup>e</sup>	Heading <sup>d</sup> days from average	Burlington	Fort Collins	Wiggins
Colorado State University exp.	HRW	CO18D297R	<b>107.4</b>	<b>111%</b>	59	12.2	3	1	<b>84.5</b>	<b>127.5</b>	<b>109.0</b>
PlainsGold	<b>HWW</b>	Monarch	<b>106.0</b>	<b>110%</b>	58	11.3	1	1	<b>84.5</b>	<b>128.5</b>	<b>105.5</b>
PlainsGold	HRW	Amplify SF	<b>103.5</b>	<b>107%</b>	58	12.4	4	2	80.0	<b>128.0</b>	103.0
PlainsGold	HRW	Guardian	<b>102.3</b>	<b>106%</b>	58	12.6	3	2	82.5	122.0	101.5
Frenchman Valley Coop	<b>HWW</b>	Valley	<b>102.2</b>	<b>106%</b>	59	11.8	3	1	80.5	<b>127.0</b>	98.5
PlainsGold	HRW	Byrd CL Plus	<b>101.1</b>	<b>104%</b>	57	11.6	5	2	82.5	118.5	103.0
CROPLAN	HRW	CP7017AX	<b>100.6</b>	<b>104%</b>	58	11.7	3	0	79.0	116.0	<b>108.0</b>
Colorado State University exp.	<b>HWW</b>	CO18D007W	<b>99.8</b>	<b>103%</b>	57	11.9	2	-1	74.0	<b>127.5</b>	96.5
Colorado State University exp.	HRW	CO19D304R	<b>99.4</b>	<b>103%</b>	57	11.9	7	2	81.5	<b>124.5</b>	93.0
PlainsGold	HRW	Crescent AX	<b>99.0</b>	<b>102%</b>	59	12.1	6	-2	<b>84.0</b>	113.5	100.5
Colorado State University exp.	HRW	CO18035RA	<b>98.3</b>	<b>102%</b>	57	11.7	6	-2	82.5	116.5	97.0
Limagrain	HRW	LCS Steel AX	<b>98.2</b>	<b>101%</b>	58	12.5	3	-3	<b>83.5</b>	110.5	98.5
PlainsGold	<b>HWW</b>	Snowmass 2.0	<b>97.6</b>	<b>101%</b>	56	12.1	4	-1	77.0	122.0	92.0
PlainsGold	HRW	Canvas	<b>97.6</b>	<b>101%</b>	57	12.2	2	0	69.0	122.5	102.0
AgriPro	HRW	SY Wolverine	<b>96.1</b>	<b>99%</b>	56	12.5	1	0	75.5	121.5	91.0
CROPLAN	HRW	CP7266AX	<b>93.3</b>	<b>96%</b>	58	12.1	7	0	<b>90.0</b>	95.0	96.5
Limagrain	HRW	LCS Atomic AX	<b>93.1</b>	<b>96%</b>	58	12.0	5	0	<b>85.0</b>	97.5	96.5
PlainsGold	<b>HWW</b>	Windom SF	<b>92.0</b>	<b>95%</b>	56	12.2	3	-1	73.0	111.0	93.5
PlainsGold	<b>HWW</b>	Breck	<b>92.0</b>	<b>95%</b>	57	12.1	1	0	62.0	122.5	91.0
Colorado State University exp.	HRW	CO18042RA	<b>91.2</b>	<b>94%</b>	58	12.0	6	0	68.0	114.5	90.5
PlainsGold	HRW	Kivari AX	<b>88.5</b>	<b>91%</b>	56	11.0	8	0	70.0	110.5	82.5
PlainsGold	HRW	Brawl CL Plus	<b>87.7</b>	<b>91%</b>	58	13.3	2	-1	70.5	103.0	89.0
PlainsGold	HRW	Ray	<b>79.3</b>	<b>82%</b>	50	12.4	3	9	46.5	111.0	81.0
		<b>Average</b>	<b>96.8</b>	<b>100%</b>	57	<b>12.0</b>	<b>4</b>	<b>0</b>	<b>77.0</b>	<b>117.0</b>	<b>96.5</b>
		<sup>f</sup> LSD (0.30)	6.1						7.0	4.0	5.0
		<sup>f</sup> LSD (0.05)	11.7						13.0	7.5	9.5

<sup>a</sup>Varieties ranked from highest to lowest yield across three irrigated trials in 2023.

<sup>b</sup>Yield adjusted to 12% moisture content. Variety yield values in the top least significant difference (LSD) yield group across the locations and within each location are in bold. Multi-location yield values for each variety are least squares means and not arithmetic averages.

<sup>c</sup>Protein adjusted to 12% moisture content and averaged across two trials in 2023.

<sup>d</sup>Varieties with positive values headed later than the trial averages and varieties with negative values headed earlier than average. Based on one trial.

<sup>e</sup>Lodging score: 1 equals no lodging and 9 is severe lodging. Scores from three trials in 2023.

<sup>f</sup>Farmers selecting a variety based on yield should use the LSD (.30) to protect themselves from false negative conclusions (concluding varieties are the same when they are actually different). Companies or researchers may use the LSD (.05) to avoid false positive conclusions (concluding varieties are different when they are actually the same).

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