



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

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

# 2023 South Dakota Winter Wheat Variety Trial Results Pierre

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**Cooperator:** Dakota Lakes Reseach Farm, Sam Ireland, manager

**Location:** 44.292795°, -99.990924°

**Soil Type:** Millboro silt loam, 0-3% slopes

**Previous crop:** flax

**Tillage:** no-till

**Row spacing:** 8"

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

**Fertilizer:**

- Starter: 10 lbs/acre 10-34-0

- Other: 49 GPA 25.1-0-0-2.6S steambar applied on 5/03/2023

**Herbicide:**

- Burndown: 25 oz/acre Glyphosate + 12 oz/acre 2,4-D + 0.1 oz/acre Tribenuron on 9/06/2022

- Post: 1 pt/acre Bromoxynil

**Fungicide:** None

**Date seeded:** 9/22/2022

**Date harvested:** 7/14/2023

## Notes:

- Yields were affected by drought conditions throughout the growing season.

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Table 1. 2023 winter wheat variety performance trial results (average of 4 replications) at Pierre, 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* (-5)	Test Wt (lbs)	Protein %	2021 (bu/a)#	2022 (bu/a)	2023 (bu/a)	2-year (bu/a)	3-year (bu/a)
SY Wolverine	24	1.1	59.7	14.0	<b>113.4</b>	<b>62.1</b>	<b>52.2</b>	<b>57.1</b>	<b>75.9</b>
WB4309	25	1.1	60.1	13.8	<b>112.3</b>	53.9	<b>58.2</b>	<b>56.1</b>	<b>74.8</b>
SD Midland	27	1.0	60.2	13.6	<b>113.3</b>	52.0	<b>55.7</b>	<b>53.8</b>	<b>73.7</b>
CP7017AX	24	1.5	59.1	13.6	<b>114.4</b>	<b>58.4</b>	47.1	52.7	<b>73.3</b>
SD Andes	24	1.0	60.9	13.7	109.8	54.7	<b>54.1</b>	<b>54.4</b>	<b>72.9</b>
Draper	25	1.0	58.9	14.4	112.0	54.3	48.5	51.4	<b>71.6</b>
Winner	26	1.0	59.4	14.0	111.6	50.3	<b>52.6</b>	51.5	71.5
LCS Steel AX	24	1.0	59.6	13.7	108.2	<b>56.1</b>	47.4	51.8	70.6
AP Bigfoot	23	1.0	58.8	14.4	<b>114.6</b>	<b>55.3</b>	40.1	47.7	70.0
Ideal	27	1.0	60.1	13.8	<b>112.6</b>	44.8	<b>50.3</b>	47.5	69.2
AP 18AX	23	1.2	58.8	14.5	107.4	<b>56.9</b>	43.2	50.0	69.2
LCS Helix AX	26	1.5	59.8	14.1	99.2	<b>64.7</b>	42.3	<b>53.5</b>	68.7
AP Clair	23	1.0	59.2	14.3	110.6	49.0	44.8	46.9	68.1
Crescent AX	26	2.2	59.2	14.1	96.7	<b>66.2</b>	40.8	<b>53.5</b>	67.9
CP7909	25	2.5	60.6	13.6	103.9	48.3	49.9	49.1	67.3
CP7869	24	2.2	59.4	14.0	104.5	50.5	46.7	48.6	67.2
LCS Chrome	25	1.0	60.7	14.9	100.6	49.4	<b>50.1</b>	49.7	66.7
Expedition	25	1.9	61.3	14.8	104.4	43.6	46.3	44.9	64.8
Redfield	24	1.1	60.2	15.2	92.8	46.3	46.9	46.6	62.0
WB4422	26	1.0	60.5	14.4	-	<b>56.5</b>	<b>52.7</b>	<b>54.6</b>	-
MS Maverick	27	1.7	60.8	14.1	-	54.0	<b>54.0</b>	<b>54.0</b>	-
Kivari AX	25	2.8	60.1	13.2	-	53.9	47.6	50.7	-
Byrd CL Plus	25	1.5	59.3	13.7	-	49.2	45.4	47.3	-
WB4510CLP	27	1.0	61.7	13.7	-	43.5	47.4	45.4	-
CP7266AX	24	1.4	60.2	14.2	-	42.1	45.9	44.0	-
CP7220	26	1.2	61.7	14.4	-	-	<b>50.9</b>	-	-
MS Sundown	27	1.9	60.0	13.8	-	-	49.5	-	-
SY Wolf	23	1.0	60.2	14.2	-	-	48.5	-	-
LCS Runner	24	1.8	60.0	13.6	-	-	44.2	-	-
<b>Trial Average</b>	25	1.4	60.2	14.1	106.7	50.7	49.4	50.5	69.8
<b>LSD (0.05)\$</b>	-	-	1.6	0.6	10.2	5.2	8.6	-	-
<b>C.V. %‡</b>	-	-	-	-	6.8	7.3	12.4	-	-

\* 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 ( $\geq$ 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.