



**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 Hayes

Jonathan Kleinjan | SDSU Extension Agronomist  
Sunish Sehgal | SDSU Winter Wheat Breeder  
Shawn Hawks | Agricultural Research Manager  
Kevin Kirby | Agricultural Research Manager  
Cody Hall | Agricultural Research Assistant

**Cooperator:** Terry Hand  
**Location:** 44.3711255°, -101.1056373°  
**Soil Type:** Promise clay, 0-3% slopes  
**Previous crop:** spring wheat  
**Tillage:** no-till  
**Row spacing:** 8"  
**Seeding Rate:** 1.2 million PLS/acre  
**Fertilizer:**

- Starter: 10 lbs/acre 10-34-0
- Other: 27 gal/acre UAN spring-applied

**Herbicide:**

- Burndown: not reported
- Post: 1.5 pt/acre Bison

**Fungicide:** None  
**Date seeded:** 9/16/2022  
**Date harvested:** 7/21/2023

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Table 1. 2023 winter wheat variety performance trial results (average of 4 replications) at Hayes, 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)
Winner	32	1.0	63.0	12.5	<b>64.7</b>	<b>40.4</b>	<b>70.8</b>	<b>55.6</b>	<b>58.6</b>
Draper	28	1.0	61.5	12.9	63.2	<b>40.9</b>	<b>69.2</b>	<b>55.1</b>	<b>57.8</b>
SD Midland	33	1.0	62.5	12.0	<b>63.9</b>	<b>35.8</b>	<b>73.0</b>	<b>54.4</b>	<b>57.6</b>
LCS Steel AX	31	1.0	62.2	12.3	63.6	32.1	<b>75.4</b>	<b>53.8</b>	<b>57.0</b>
SY Wolverine	26	1.0	60.6	12.6	<b>71.0</b>	31.5	68.3	49.9	<b>56.9</b>
Ideal	32	1.0	63.1	12.1	61.2	34.2	<b>72.9</b>	<b>53.5</b>	<b>56.1</b>
AP Bigfoot	27	1.0	61.6	12.2	<b>64.1</b>	32.3	<b>70.8</b>	<b>51.6</b>	55.8
CP7017AX	29	1.0	61.6	12.1	62.2	<b>38.5</b>	66.0	<b>52.2</b>	55.5
LCS Chrome	30	1.0	62.6	13.5	63.4	33.0	69.1	51.0	55.1
CP7869	31	2.6	61.5	12.7	62.9	<b>37.4</b>	64.3	50.8	54.8
WB4309	29	1.5	58.6	13.2	62.7	<b>37.9</b>	63.9	50.9	54.8
AP 18AX	29	1.0	61.4	12.4	61.4	32.8	<b>70.1</b>	51.4	54.8
AP Clair	26	1.0	61.6	12.4	<b>67.8</b>	34.5	60.4	47.5	54.3
LCS Helix AX	30	1.7	62.0	12.3	61.4	30.8	69.0	49.9	53.7
SD Andes	29	1.0	62.7	12.5	59.6	33.3	68.0	50.7	53.6
CP7909	29	3.3	60.4	12.2	<b>64.0</b>	30.9	62.7	46.8	52.5
Redfield	30	1.0	62.0	13.3	54.2	<b>37.0</b>	65.6	51.3	52.3
Crescent AX	31	2.3	61.9	12.1	54.8	24.3	68.7	46.5	49.3
Expedition	29	1.7	61.6	13.2	56.7	32.5	54.4	43.5	47.9
WB4422	30	1.0	63.2	13.3	-	<b>35.4</b>	<b>73.1</b>	<b>54.2</b>	-
MS Maverick	31	1.0	62.0	13.0	-	31.1	<b>71.0</b>	51.1	-
CP7266AX	28	1.2	61.7	13.0	-	<b>35.4</b>	66.2	50.8	-
Byrd CL Plus	33	1.4	60.9	11.8	-	32.5	67.6	50.0	-
Kivari AX	31	4.0	61.1	11.7	-	31.7	64.4	48.1	-
WB4510CLP	34	1.0	64.2	12.6	-	27.0	68.9	47.9	-
CP7220	32	1.4	63.1	13.3	-	-	<b>69.3</b>	-	-
SY Wolf	30	1.0	62.9	12.8	-	-	68.9	-	-
LCS Runner	31	1.0	63.4	12.5	-	-	66.3	-	-
MS Sundown	29	1.4	61.1	12.4	-	-	65.6	-	-
<b>Trial Average</b>	30	1.4	62.1	12.7	60.8	33.7	68.0	50.7	54.7
<b>LSD (0.05)\$</b>	-	-	0.7	0.7	4.8	5.8	6.2	-	-
<b>C.V. %‡</b>	-	-	-	-	5.6	12.3	6.5	-	-

\* 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 (≥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.