



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

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

# 2021 South Dakota Winter Wheat Variety Trial Results Wall

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**Cooperator:** Kent Kjerstad c/o Bryan Lutter  
**Location:** 43.965833°,-102.247500°  
**Soil Type:** Nunn loam, 2-6% slopes  
**Previous crop:** chem fallow  
**Tillage:** no-till  
**Row spacing:** 10"  
**Seeding Rate:** 1.2 million PLS/acre  
**Fertilizer:**  
-Starter: 10 gal/acre 10-25-0-.25S  
-Other: 40 gal/acre 28-0-0 mid-row banded  
**Herbicide:**  
-Burndown: 16 oz/acre Roundup RT3  
-Post: none  
**Fungicide:** none  
**Date seeded:** 9/17/2020  
**Date harvested:** 7/29/2021  
**Notes:** Good early season moisture, overall good trial results.



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Table 1. 2021 winter wheat variety performance trial results (average of four replications) at Wall, South Dakota. Entries are sorted by overall three-year yield. Varieties yielding in the top third of the trial are shaded light blue.

Variety	Height (in)	Lodging* (1-5)	Test Wt (lbs/bu)	Protein %	2019 (bu/a)#	2020 (bu/a)	2021 (bu/a)	2-year (bu/a)	3-year (bu/a)
Winner	32	not reported	57.5	13.3	78.3	57.9	74.8	66.3	70.3
Ideal	38	reported	57.0	14.0	66.3	51.4	80.8	66.1	66.2
SD Andes	35	-	59.2	14.3	63.8	52.6	79.2	65.9	65.2
Redfield	40	-	58.3	13.6	68.0	51.1	72.9	62.0	64.0
Cowboy	31	-	58.2	14.4	54.7	50.2	86.1	68.1	63.7
Draper	37	-	59.1	13.3	66.1	48.4	73.9	61.1	62.8
Oahe	42	-	59.8	13.5	59.5	52.1	75.7	63.9	62.5
Thompson	35	-	58.4	14.0	61.9	45.4	78.8	62.1	62.0
WB4462	40	-	59.3	13.9	55.4	52.0	77.8	64.9	61.8
Overland	41	-	59.2	13.6	58.0	50.9	73.8	62.3	60.9
SY Wolverine	33	-	57.2	14.3	53.5	44.8	77.1	61.0	58.5
SY 517 CL2	37	-	57.6	14.3	53.4	43.3	75.9	59.6	57.5
Langin	34	-	58.9	12.9	47.8	47.1	77.0	62.0	57.3
Expedition	46	-	57.6	13.7	49.2	36.4	69.1	52.8	51.6
CP7909	37	-	58.8	13.8	-	49.7	86.3	68.0	-
LCS Helix AX	38	-	59.6	13.7	-	51.3	78.4	64.9	-
WB4309	34	-	57.8	13.7	-	50.8	75.1	62.9	-
Crescent AX	41	-	58.6	13.4	-	49.3	74.4	61.8	-
Guardian	36	-	59.4	14.0	-	53.5	65.7	59.6	-
CP7050AX	38	-	57.6	13.2	-	48.8	70.0	59.4	-
CP7017AX	35	-	57.5	12.8	-	51.1	67.8	59.4	-
AP 18AX	34	-	61.0	13.8	-	51.2	66.6	58.9	-
ND Noreen	44	-	58.9	14.0	-	44.6	67.8	56.2	-
LCS Julep	37	-	58.6	12.9	-	-	77.8	-	-
AP Clair	35	-	57.0	13.9	-	-	77.6	-	-
LCS Chrome	37	-	56.9	13.3	-	-	75.6	-	-
CP7869	37	-	60.1	14.3	-	-	74.0	-	-
LCS Steel AX	38	-	60.0	14.1	-	-	73.0	-	-
MS Iceman	38	-	57.8	12.9	-	-	72.8	-	-
AP Bigfoot	35	-	56.7	13.3	-	-	71.6	-	-
LCS Photon AX	38	-	60.7	13.9	-	-	68.7	-	-
Whistler	36	-	56.4	13.4	-	-	63.3	-	-
<b>Trial Average#</b>	37	-	58.5	13.7	56.8	49.2	75.4	62.1	61.7
<b>LSD (0.05)†</b>	-	-	1.2	0.4	8.8	7.1	8.1	-	-
<b>C.V. %‡</b>	-	-	1.5	2.3	11.1	8.9	7.6	-	-

\* Lodging score: 1, perfectly standing; to 5, completely flat.

# 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.