



**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 South Shore

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**Cooperator:** SDSU Northeast Research Farm, Al Heuer, Manager  
**Location:** 45.107383°, -97.098875°  
**Soil Type:** Kranzburg-Brookings silty clay loams, 0-2% slopes  
**Previous crop:** oats  
**Tillage:** no-till  
**Row spacing:** 8"  
**Seeding Rate:** 1.2 million PLS/acre  
**Fertilizer:**  
-Starter: 90 lbs/acre 30-10-10  
-Other: 200-0-90-0S-5Z  
**Herbicide:**  
-Burndown: 32 oz Roundup Powermax  
-Post: 1.25 pt Maestro + .5 pt Parity applied on 5/20  
**Fungicide:** none  
**Date seeded:** 9/16/2020  
**Date harvested:** 7/21/2021



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

Variety	Height (in)	Lodging* (1-5)	Test Wt (lbs)	Protein (%)#	2019 (bu/a)#	2020 (bu/a)	2021 (bu/a)	2-year§ (bu/a)
SD Andes	25.3	1.0	59.7	14.3	no data	81.1	63.0	72.0
SY Wolverine	25.0	1.0	60.9	14.5	-	74.5	63.5	69.0
WB4309	27.3	1.0	59.5	14.4	-	71.1	64.6	67.8
Ideal	25.3	1.0	61.4	14.5	-	73.7	61.6	67.7
Oahe	28.0	1.0	60.6	14.9	-	74.7	60.3	67.5
WB4462	28.0	1.0	60.4	14.7	-	75.8	59.1	67.4
ND Noreen	28.3	1.0	56.1	15.2	-	73.4	61.4	67.4
Winner	26.5	1.0	60.3	14.7	-	75.1	58.6	66.8
Thompson	28.5	1.0	58.4	13.9	-	74.0	59.1	66.6
Guardian	25.5	1.0	61.2	14.4	-	70.7	61.6	66.2
CP7017AX	25.3	1.0	61.4	13.3	-	71.6	60.0	65.8
Redfield	25.3	1.0	58.7	15.0	-	71.5	59.2	65.3
Cowboy	26.0	1.0	58.3	13.3	-	73.3	56.6	64.9
LCS Helix AX	23.8	1.0	61.3	13.6	-	73.5	55.7	64.6
Draper	26.3	1.0	60.0	15.1	-	73.4	55.4	64.4
Overland	26.5	1.0	60.7	14.8	-	70.9	56.7	63.8
Langin	24.0	1.0	60.7	14.4	-	68.6	56.7	62.6
Crescent AX	25.3	1.0	60.7	15.0	-	69.6	51.7	60.6
AP 18AX	24.8	1.0	60.5	14.6	-	67.3	53.8	60.5
CP7909	24.3	1.0	60.6	15.0	-	67.2	50.7	58.9
SY 517 CL2	24.3	1.0	61.7	15.5	-	64.9	52.6	58.7
Expedition	26.5	1.0	61.4	16.7	-	57.8	47.5	52.6
CP7050AX	25.3	1.0	60.3	16.3	-	58.9	46.0	52.5
Whistler	27.8	1.0	59.9	13.1	-	-	64.2	-
LCS Steel AX	27.0	1.0	56.7	13.0	-	-	60.1	-
AP Clair	25.0	1.0	60.3	14.0	-	-	59.7	-
LCS Julep	26.3	1.0	61.5	15.0	-	-	59.7	-
CP7869	25.5	1.0	60.1	13.9	-	-	56.2	-
LCS Chrome	24.8	1.0	60.5	15.0	-	-	54.5	-
AP Bigfoot	25.0	1.0	61.1	14.7	-	-	53.8	-
MS Iceman	23.8	1.0	61.5	15.9	-	-	51.8	-
LCS Photon AX	25.0	1.0	59.6	16.1	-	-	40.8	-
<b>Trial Average¶</b>	26.1	1.0	60.2	14.8	-	70.9	57.7	64.1
<b>LSD (0.05)†</b>	-	-	1	0.7	-	4.5	4.3	-
<b>C.V. %‡</b>	-	-	1.2	3.3	-	4.5	5.4	-

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

# Grain yield and grain protein content are corrected to 13% moisture.

§ Three-year yields are not reported as the location was not harvested in 2019.

¶ 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.