



**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 Mount Vernon

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Cooperator: Edinger Brothers
Location: 43.919092°, -98.649499°
Soil Type: Highmore-Mobridge silt loams, 0-2% slopes
Previous crop: soybeans
Tillage: no-till
Row spacing: 8"
Seeding Rate: 1.2 million PLS/acre
Fertilizer:
-Starter: 90 lbs/acre 30-10-10
-Other: 120-0-0 as urea broadcast-applied in early April
Herbicide:
-Burndown: none
-Post: 5 oz LV6 + 0.6 oz Affinity TankMix + 6 oz Starane
Fungicide: 2 oz propiconazole + 3 oz azoxystrobin (applied with herbicide)
Date seeded: 9/25/2020
Date harvested: 7/22/2021
Notes: Trial was affected by early-season heat and drought stress.



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Table 1. 2021 winter wheat variety performance trial results (average of four replications) at Mount Vernon, SD. 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)	Protein %	2019 (bu/a)#	2020 (bu/a)	2021 (bu/a)	2-year (bu/a)	3-year (bu/a)
Ideal	26	1.0	61.1	12.7	61.8	72.9	59.5	66.2	64.7
Cowboy	26	1.0	61.7	11.8	55.8	75.9	62.3	69.1	64.7
SD Andes	26	1.0	60.9	13.1	61.6	72.6	58.2	65.4	64.1
Redfield	26	1.0	60.8	13.6	59.9	70.8	58.0	64.4	62.9
Winner	25	1.0	60.3	12.9	59.9	70.3	56.7	63.5	62.3
Draper	24	1.0	60.6	13.1	54.3	70.8	58.6	64.7	61.2
Langin	23	1.0	59.9	12.4	50.5	75.0	56.8	65.9	60.8
Thompson	27	1.0	61.2	13.6	60.8	61.7	59.6	60.6	60.7
WB4462	27	1.0	61.0	12.8	54.4	67.9	59.3	63.6	60.5
Oahe	26	1.0	61.5	13.1	65.5	51.3	58.2	54.8	58.3
Overland	25	1.0	60.7	13.5	52.8	62.1	53.9	58.0	56.3
SY Wolverine	22	1.0	59.9	13.2	31.2	76.4	55.1	65.7	54.2
SY 517 CL2	24	1.0	60.5	13.9	45.0	62.1	48.8	55.4	52.0
Expedition	25	1.0	60.4	13.5	39.7	59.8	48.5	54.2	49.3
Guardian	25	1.0	61.9	13.0	-	71.0	59.8	65.4	-
CP7909	23	1.0	60.8	12.5	-	70.2	58.6	64.4	-
LCS Helix AX	22	1.0	61.1	12.5	-	71.0	54.3	62.7	-
WB4309	24	1.0	60.3	13.3	-	65.2	60.0	62.6	-
CP7017AX	23	1.0	59.5	12.6	-	69.8	52.8	61.3	-
AP 18AX	24	1.0	59.0	13.2	-	65.1	56.0	60.6	-
Crescent AX	25	1.0	60.3	12.9	-	66.5	54.4	60.5	-
ND Noreen	26	1.0	61.4	13.8	-	61.1	54.5	57.8	-
CP7050AX	23	1.0	61.0	13.9	-	51.2	52.0	51.6	-
MS Iceman	22	1.0	60.9	14.3	-	-	46.0	-	-
LCS Chrome	26	1.0	60.2	14.0	-	-	47.4	-	-
LCS Photon AX	26	1.0	60.5	13.5	-	-	47.8	-	-
LCS Julep	23	1.0	62.0	13.6	-	-	50.3	-	-
LCS Steel AX	24	1.0	59.5	12.4	-	-	51.7	-	-
AP Clair	21	1.0	60.0	13.1	-	-	56.3	-	-
AP Bigfoot	24	1.0	59.8	13.3	-	-	57.5	-	-
CP7869	25	1.0	59.9	12.6	-	-	59.3	-	-
Whistler	27	1.0	60.9	12.1	-	-	64.9	-	-
Trial Average#	25	1.0	60.6	13.3	51.3	66.1	55.7	61.7	59.4
LSD (0.05)†	-	-	0.7	0.3	7.5	4.3	5.6	-	-
C.V. %‡	-	-	0.9	1.8	10.5	4.7	7.2	-	-

* 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.