



2021 South Dakota Winter Wheat Variety Trial Results Winner

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Cooperator: Jorgensen Land and Cattle
Location: 43.536275°, -99.820777°
Soil Type: Millboro silty clay, 0-3% slopes
Previous crop: oats
Tillage: no-till
Row spacing: 8"
Seeding Rate: 1.2 million PLS/acre
Fertilizer:
-Starter: 10 gal/acre 10-34-0
-Other: 84-0-0 as UAN spring-applied
Herbicide:
-Burndown: 22 oz/acre RT3 + 4 oz/acre Distinct + 1.5 oz/acre BB5 + 10 oz/acre Firestone
-Post: 16 oz/acre Bronate + 16 oz/acre GoldSky
Fungicide: none
Date seeded: 9/24/2020
Date harvested: 7/13/2021
Notes: This location had a frost/freeze event during the first week of May and had about five inches of precipitation during the growing season. Some stand reductions but overall a good trial.



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Table 1. 2021 winter wheat variety performance trial results (average of four replications) at Winner, 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	27	1.0	60.6	12.4	75.9	94.6	80.9	87.8	83.8
WB4462	30	1.3	59.8	12.9	72.1	90.8	80.9	85.8	81.3
SD Andes	27	1.0	61.8	13.1	74.8	89.9	78.1	84.0	80.9
Draper	28	1.0	58.6	12.4	74.0	90.8	77.0	83.9	80.6
Ideal	28	1.0	60.6	12.4	74.7	88.8	77.4	83.1	80.3
Overland	31	1.0	59.0	12.8	70.1	89.8	78.7	84.2	79.5
Langin	27	2.0	59.0	11.3	67.9	87.0	82.8	84.9	79.2
Redfield	27	1.0	59.8	13.1	70.6	89.5	76.4	83.0	78.8
SY Wolverine	26	1.0	59.3	12.9	69.7	88.7	77.8	83.3	78.7
Oahe	33	1.0	60.9	11.8	70.8	87.4	75.9	81.6	78.0
Thompson	29	1.0	60.5	12.5	68.2	86.8	77.2	82.0	77.4
Cowboy	26	1.0	61.2	11.7	73.7	82.7	71.1	76.9	75.9
SY 517 CL2	24	1.0	62.5	13.3	60.3	82.9	62.0	72.4	68.4
Expedition	28	1.3	60.9	12.9	56.2	83.4	65.3	74.4	68.3
WB4309	28	1.0	59.7	12.8	-	98.5	76.6	87.5	-
Guardian	28	1.0	60.3	12.3	-	89.2	78.3	83.7	-
LCS Helix AX	25	1.0	61.7	12.9	-	86.2	70.8	78.5	-
CP7909	28	2.0	59.6	12.3	-	90.2	66.1	78.2	-
AP 18AX	26	1.0	58.8	12.5	-	84.1	70.9	77.5	-
CP7017AX	26	1.0	59.7	11.6	-	85.3	69.0	77.2	-
Crescent AX	28	1.3	61.2	13.4	-	86.3	67.5	76.9	-
ND Noreen	29	1.0	62.4	13.5	-	80.4	70.4	75.4	-
CP7050AX	25	1.0	61.5	13.8	-	78.6	51.0	64.8	-
Whistler	30	1.8	58.2	11.8	-	-	83.4	-	-
AP Clair	24	1.0	59.6	12.7	-	-	82.0	-	-
LCS Steel AX	29	1.0	60.1	12.0	-	-	78.3	-	-
MS Iceman	27	1.3	60.6	14.7	-	-	75.0	-	-
AP Bigfoot	27	1.0	58.6	11.9	-	-	74.2	-	-
LCS Julep	27	1.0	63.0	13.3	-	-	71.3	-	-
CP7869	27	1.0	59.0	12.3	-	-	70.3	-	-
LCS Chrome	28	1.0	60.5	13.9	-	-	66.9	-	-
LCS Photon AX	26	1.0	60.8	13.9	-	-	60.9	-	-
Trial Average#	27	1.1	60.3	12.8	70.4	87.1	73.7	80.3	77.9
LSD (0.05)†	-	-	1.1	0.9	7.2	7.0	8.7	-	-
C.V. %‡	-	-	1.2	5.2	7.4	5.8	8.4	-	-

* 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.