



2020 South Dakota Winter Wheat Variety Trial Results Mt. Vernon

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Location: 43.717408°, -98.282943°

Soil Type: Houdek-Prosper loams, 0-2% slopes

Previous crop: prevent plant/fallow

Tillage: no-till

Row spacing: 8"

Seeding Rate: 1.2 million PLS/acre

Fertilizer:

- Starter: 90 lbs/acre 30-10-10
- Other: 90-0-0-10 stream bar applied @ Feekes 10

Herbicide:

- Burndown: none
- Post: 5 oz LV6 + 0.6 oz Edition TankMix + 6 oz Stark Ultra

Fungicide: 4 oz Star-Shield PPZ (applied with herbicide) + 13.5 oz Caramba at Feekes 10.5

Date seeded: 9/19/2019

Date harvested: 7/16/2020

Notes: Trial was severely lodged due to a storm event in mid-June with 90 mph winds.

Table 1. 2020 winter wheat variety performance trial results (average of 4 replications) at Mt. Vernon, SD. Entries are sorted by overall 2-year yield. Varieties yielding in the top 1/3 of the trial are shaded light blue.

Variety	Height (in)	Lodging* (1-5)	Test Wt (lbs)	Protein %	2018 (bu/a)	2019 (bu/a)	2020 (bu/a)	2-year (bu/a)	3-year (bu/a)
Ideal	36	3.8	60.7	13.9	70.9	61.8	72.9	67.4	68.5
Winner	38	3.0	59.6	14.5	72.6	59.9	70.3	65.1	67.6
Cowboy	35	3.0	59.4	13.9	68.6	55.8	75.9	65.8	66.8
Redfield	35	3.0	59.9	15.1	65.4	59.9	70.8	65.4	65.4
Draper	36	2.5	58.6	14.7	66.3	54.3	70.8	62.6	63.8
Langin	36	3.3	58.3	14.5	65.1	50.5	75.0	62.8	63.5
Thompson	38	3.0	59.6	14.9	67.9	60.8	61.7	61.2	63.5
SY Monument	36	2.5	58.2	14.1	66.5	57.5	66.3	61.9	63.4
WB4462	39	3.8	56.3	15.5	66.9	54.4	67.9	61.1	63.1
Oahe	41	3.3	56.9	15.1	65.3	65.5	51.3	58.4	60.7
SY Sunrise	35	2.3	58.4	14.4	60.3	49.0	69.2	59.1	59.5
Keldin	35	3.5	58.8	15.0	68.0	43.6	66.4	55.0	59.3
Overland	39	3.0	58.2	15.1	61.4	52.8	62.1	57.5	58.8
WB-Grainfield	36	3.3	56.8	15.2	60.0	38.9	68.7	53.8	55.9
SY 517 CL	36	3.0	58.7	14.8	57.1	45.0	62.1	53.5	54.7
Expedition	38	3.0	58.8	15.2	57.7	39.7	59.8	49.8	52.4
WB4595	35	2.0	60.3	13.4	-	48.3	75.1	61.7	-
NW13493	37	2.5	59.2	15.3	-	56.8	62.0	59.4	-
SY Wolverine	34	2.5	58.5	15.3	-	31.2	76.4	53.8	-
LCS Helix AX	35	2.8	60.4	14.1	-	-	71.0	-	-
Guardian	36	2.5	59.0	14.9	-	-	71.0	-	-
LCS Diesel	38	3.8	58.2	15.2	-	-	70.5	-	-
CP7909	37	3.8	56.9	14.6	-	-	70.2	-	-
CP7010	33	1.8	60.9	13.7	-	-	70.1	-	-
CP7017CA	34	2.8	58.0	14.6	-	-	69.8	-	-
Northern	34	2.3	58.4	14.7	-	-	68.1	-	-
Flathead	38	3.0	57.7	14.7	-	-	67.3	-	-
Crescent AX	39	3.0	58.4	15.3	-	-	66.5	-	-
WB4309	37	2.8	58.2	16.1	-	-	65.2	-	-
AP 18AX	38	3.0	57.7	15.4	-	-	65.1	-	-
NE14696	41	3.8	59.0	15.8	-	-	62.5	-	-
14NORD-1	37	2.8	60.7	14.6	-	-	61.1	-	-
CP7050CA	38	2.5	58.0	16.1	-	-	51.2	-	-
MTF 1435	41	3.0	53.6	14.5	-	-	41.5	-	-
Trial Average#	37	3.0	58.6	14.9	63.5	51.3	66.1	59.7	61.7
LSD (0.05)†	1.8	0.6	0.9	0.4	3.8	7.5	4.3	-	-
C.V. %‡	3.4	-	1.1	2.0	4.3	10.5	4.7	-	-

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

Trial averages may include values from experimental lines that are not reported.

† Value required (\geq 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.