



2022 South Dakota Winter Wheat Variety Trial Results Sturgis

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Cooperator: SDSU Sturgis Research Farm, Christopher Graham, manager
Location: 44.424167°, -103.376111°
Soil Type: Nunn clay loam, 0-2% slopes
Previous crop: field peas
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: none
- Post: 1.33 pt/acre WideMatch
Fungicide: none
Date seeded: 9/29/2021
Date harvested: 8/4/2022
Notes: Trial was hailed on twice during the growing season. Results were not published in 2021 due to high variability. The three-year average reported is actually an average of yields from 2020 and 2022.



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Table 1. 2022 winter wheat variety performance trial results (average of 4 replications) at Sturgis, SD.

Entries are sorted by overall 3-year yield. Varieties yielding in the top 1/3 of the trial are bolded and shaded light blue.

Variety	Height (in)	Lodging* (1-5)	Test Wt (lbs)	Protein (%)#	2020 (bu/a)#	2021 (bu/a)	2022 (bu/a)	2-year (bu/a)	3-year§ (bu/a)
Ideal	not reported	not reported	60.6	13.9	90.0	not published	43.3	not available	66.6
AP 18AX	reported	reported	57.9	14.0	82.0	published	44.2	available	63.1
SD Andes	-	-	59.9	13.4	74.1	-	51.3	-	62.7
Draper	-	-	58.6	14.6	77.3	-	47.3	-	62.3
CP7050AX	-	-	60.0	14.1	78.3	-	44.7	-	61.5
CP7017AX	-	-	58.6	13.7	74.2	-	46.3	-	60.3
Crescent AX	-	-	60.1	14.2	81.0	-	38.9	-	59.9
CP7909	-	-	60.3	14.7	73.6	-	45.9	-	59.7
LCS Helix AX	-	-	59.4	14.2	70.7	-	40.4	-	55.5
Winner	-	-	57.7	14.8	66.1	-	43.3	-	54.7
WB4309	-	-	57.7	15.6	63.3	-	44.3	-	53.8
SY Wolverine	-	-	60.4	14.2	61.5	-	44.4	-	52.9
SD Midland	-	-	58.5	14.2	55.4	-	46.7	-	51.1
Expedition	-	-	59.2	15.0	57.1	-	41.3	-	49.2
Redfield	-	-	57.7	14.7	51.2	-	44.4	-	47.8
LCS Steel AX	-	-	57.9	14.0	-	-	49.1	-	-
Kivari AX	-	-	59.0	13.0	-	-	49.0	-	-
Byrd CL Plus	-	-	59.2	13.7	-	-	48.2	-	-
MS Maverick	-	-	58.7	14.4	-	-	47.5	-	-
CP7869	-	-	58.6	14.1	-	-	47.3	-	-
LCS Chrome	-	-	58.3	15.1	-	-	45.1	-	-
WB4422	-	-	59.1	15.2	-	-	44.2	-	-
AP Clair	-	-	59.9	14.9	-	-	44.0	-	-
LCS Julep	-	-	61.0	15.1	-	-	43.7	-	-
CPX72166AX	-	-	59.5	14.1	-	-	43.7	-	-
LCS Photon AX	-	-	60.4	14.4	-	-	43.6	-	-
Viking 211	-	-	56.9	14.5	-	-	43.6	-	-
MS Iceman	-	-	58.8	15.9	-	-	40.6	-	-
AP Bigfoot	-	-	60.5	14.4	-	-	37.8	-	-
WB4510CLP	-	-	59.4	14.4	-	-	37.6	-	-
Trial Average#	-	-	59.1	14.4	70.4	-	44.3	-	-
LSD (0.05)†	-	-	-	-	6.6	-	5.0	-	-
C.V. %‡	-	-	-	-	6.7	-	8.0	-	-

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

Corrected to 13% moisture. Note: Trial averages may include values from experimental lines that are not reported.

§ Data was not published in 2021 due to high variability. The 3-year average is actually an average of 2020 and 2022.

† 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.