SOUTH DAKOTA STATE UNIVERSITY
College of Agriculture, Food and Environmental Sciences

2023 South Dakota
Winter Wheat Variety Trial Results
Vivian

Jonathan Kleinjan | SDSU Extension Agronomist

Shawn Hawks | Agricultural Research Manager

Kevin Kirby | Agricultural Research Manager

Cooperator: Ryan Larson, c/o Logan Reuman

Location: 43.879835°, -100.278600°

Soil Type: Millboro silty clay, 3-6% slopes

Previous crop: oats

Tillage: no-till

Row spacing: 10"

Seeding Rate: 1.2 million PLS/acre

Fertilizer:
- Starter: 90 lbs/acre 30-10-10
- Other: 13-46-0 broadcast preplant + 35 gal/acre 28-0-0-2 on 5/5/2023

Herbicide:
- Burndown: 32 oz/acre Abundit Edge on 9/16/2023
- Post: 16 oz/acre WideMatch + 2 oz Powerflex HL on 5/6/2023

Fungicide: 4 oz propiconazole (applied with herbicide)

Date seeded: 9/14/2022

Date harvested: 7/31/2023

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Table 1. 2023 winter wheat variety performance trial results (average of 4 replications) at Vivian, SD.
Entries are sorted by overall 3-year yield. Varieties yielding in the top 1/3 of the trial are bold and shaded light blue.

Variety	Height (inches)	Lodging* (-5)	Test Wt (lbs)	Protein %	2021 (bu/a)#	2022 (bu/a)	2023 (bu/a)	2-year (bu/a)	3-year (bu/a)
SY Wolverine	21	2.3	58.8	13.0	**54.3**	**104.5**	57.4	**81.0**	**72.1**
AP Clair	23	1.0	57.8	14.5	**50.9**	**103.4**	58.6	**81.0**	**71.0**
WB4309	24	2.3	58.3	12.9	**55.8**	**96.2**	58.5	**77.4**	**70.2**
CP7909	21	2.3	58.6	14.3	50.0	**100.2**	53.4	**76.8**	**67.9**
Winner	24	2.5	57.5	12.5	**57.9**	86.9	56.5	71.7	**67.1**
CP7017AX	24	2.8	59.1	14.4	49.8	**91.1**	59.2	**75.2**	**66.7**
SD Andes	26	1.5	59.9	13.8	48.9	84.0	**66.7**	**75.4**	66.5
AP 18AX	23	2.0	57.7	14.9	42.6	**95.5**	**59.8**	**77.7**	66.0
LCS Steel AX	26	1.5	59.2	14.1	**53.7**	83.8	59.1	71.5	65.6
SD Midland	27	1.8	59.1	13.8	49.1	87.0	**60.1**	73.5	65.4
Draper	23	1.8	58.3	14.2	49.4	86.1	58.2	72.2	64.6
CP7869	23	2.5	58.5	14.3	48.4	84.5	**60.5**	72.5	64.5
LCS Chrome	26	1.8	59.1	14.1	49.5	87.3	55.9	71.6	64.2
AP Bigfoot	23	2.3	58.6	14.8	**51.9**	88.8	51.7	70.2	64.1
Redfield	25	2.0	59.1	13.8	46.8	84.2	**60.5**	72.3	63.8
LCS Helix AX	23	2.8	59.3	14.1	46.9	**89.6**	53.8	71.7	63.4
Ideal	25	1.8	59.5	14.2	48.3	79.1	**62.9**	71.0	63.4
Expedition	25	2.8	59.9	14.2	45.1	86.6	52.3	69.5	61.4
Crescent AX	24	2.8	59.0	14.2	40.9	89.3	49.7	69.5	59.9
WB4422	24	1.3	59.5	12.9	-	**105.9**	**60.5**	**83.2**	-
Byrd CL Plus	28	2.5	59.0	14.5	-	89.3	**59.3**	74.3	-
Kivari AX	24	3.3	59.2	14.2	-	84.2	56.1	70.2	-
WB4510CLP	29	1.0	61.7	12.7	-	74.2	**64.4**	69.3	-
CP7266AX	23	3.0	57.8	14.4	-	86.5	49.7	68.1	-
MS Maverick	24	3.0	59.2	14.0	-	79.9	54.2	67.0	-
CP7220	25	2.8	59.2	14.4	-	-	**60.4**	-	-
LCS Runner	23	2.3	60.2	14.1	-	-	58.0	-	-
SY Wolf	25	2.0	58.4	13.1	-	-	54.5	-	-
MS Sundown	24	2.8	58.1	14.0	-	-	54.2	-	-
Trial Average	24	2.1	59.0	13.8	47.7	89.5	57.5	73.3	65.7
LSD (0.05)§	-	-	0.8	0.6	8.9	9.1	6.3	-	-
C.V. %‡	-	-	-	-	13.3	7.3	7.9	-	-

* 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.
† 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.