South Dakota State University
College of Agriculture, Food and Environmental Sciences

South Dakota State University Extension
South Dakota Agricultural Experiment Station at SDSU

2023 South Dakota Spring Wheat Variety Trial Results Frankfort

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Cooperator:	Brian Johnson
Location:	44.823107°, -98.281240°
Soil Type:	Great Bend-Beotia silt loams, 0-2% slopes
Previous crop:	soybeans
Tillage:	no-till
Row spacing:	7"
Seeding Rate:	1.8 million PLS/acre
Fertilizer:	
-Starter:	90 lb/acre 30-10-10
-Other:	330lb/acre 46-0-0 + 54 lb/acre 21-0-0-24
Herbicide:	
-Burndown:	NR
-Post:	1.5 pt/acre Bromac
Fungicide:	none
Date seeded:	5/2/2023
Date harvested:	8/11/2023

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Table 1. 2023 spring wheat variety performance trial results (average of 4 replications) at Frankfort, SD.

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

Variety	Height (in)	Lodging* (1-5)	Test Wt (lbs)	Protein %	2021 (bu/a)#	2022 (bu/a)	2023 (bu/a)	2-year (bu/a)	3-year (bu/a)
LCS Trigger	29	1.0	59.3	13.2	**73.9**	**52.1**	**79.9**	**66.0**	**68.6**
Ascend-SD	30	1.0	60.2	14.7	63.9	**53.2**	**80.5**	**66.9**	**65.9**
LCS Cannon	27	1.0	61.1	14.9	61.3	**57.4**	**78.7**	**68.0**	**65.8**
AP Gunsmoke CL2	27	1.0	59.0	16.2	65.0	48.3	75.2	61.7	**62.8**
Driver	30	1.0	59.7	14.6	**69.2**	44.8	74.4	59.6	**62.8**
WB9606	30	1.0	59.7	13.9	**69.5**	42.0	**76.6**	59.3	**62.7**
LCS Buster	29	1.0	56.3	13.5	**68.9**	43.1	73.4	58.2	61.8
WB9719	28	1.0	60.7	14.7	57.4	50.5	76.1	63.3	61.3
SY Valda	27	1.0	58.7	14.7	63.7	42.3	**77.9**	60.1	61.3
AP Murdock	26	1.0	59.5	15.2	55.2	52.8	75.4	**64.1**	61.1
Brawn-SD	28	1.0	60.1	14.1	**66.4**	42.7	71.4	57.0	60.2
AP Revolution	26	1.0	60.2	15.2	54.0	**52.8**	72.4	62.6	59.7
MS Cobra	27	1.0	59.4	15.3	57.4	45.9	75.4	60.7	59.6
Surpass	29	1.0	59.2	15.7	53.5	43.0	**76.3**	59.7	57.6
Prevail	27	1.0	58.5	15.0	54.9	44.9	71.4	58.2	57.1
MN-Rothsay	27	1.0	58.9	14.6	54.5	35.1	72.4	53.7	54.0
CP3099A	32	1.0	55.6	12.3	**69.3**	20.2	67.3	43.8	52.3
CAG Justify	31	1.0	57.8	14.2	-	45.3	**85.1**	**65.2**	-
CAG Reckless	28	1.0	59.7	15.1	-	**56.4**	73.7	**65.1**	-
LCS Ascent	27	1.0	60.2	14.7	-	**55.1**	74.4	**64.7**	-
MS Charger	28	1.0	58.7	13.7	-	50.8	**78.3**	**64.6**	-
LCS Dual	28	1.0	59.8	14.9	-	**55.9**	69.0	62.4	-
LCS Boom	26	1.0	61.2	15.7	-	47.0	**77.5**	62.3	-
LCS Hammer AX	27	1.0	58.2	14.9	-	42.6	71.8	57.2	-
MN-Torgy	27	1.0	59.7	15.1	-	-	**82.6**	-	-
ND Heron	29	1.0	60.9	15.4	-	-	73.9	-	-
WB9590	25	1.0	58.4	16.2	-	-	68.9	-	-
CAG Recoil	27	1.0	57.1	15.5	-	-	68.0	-	-
CP3188	28	1.0	57.6	13.9	-	-	60.2	-	-
PFS Buns	29	1.0	53.3	15.3	-	-	58.0	-	-
AP Venom	26	1.0	54.9	14.9	-	-	54.5	-	-
Trial Average#	28	1.0	59.0	14.9	60.7	44.3	73.6	61.0	60.9
LSD (0.05)†	-	-	59	0.8	6.5	7.9	6	-	-
C.V. %‡	-	-	-	-	7.6	12.8	5.8	-	-

* Lodging score: 1, perfectly standing; to 5, completely flat.
# Trial averages may include values from experimental lines that are not reported, yield is reported @13%M, protein is @12%M.
† 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.