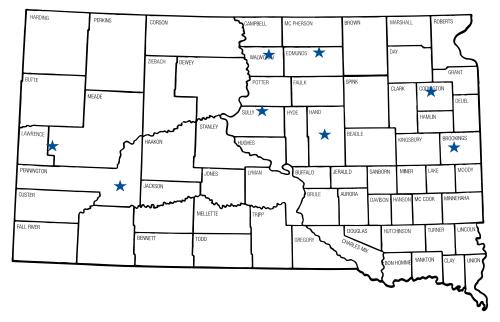


SOUTH DAKOTA STATE UNIVERSITY College of Agriculture, Food and Environmental Sciences South Dakota State University Extension South Dakota Agricultural Experiment Station at SDSU

2024 South Dakota Spring Wheat Variety Trial Results Regional Summaries

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Eastern trial locations:

South Shore, Volga

Central trial locations:

Agar, Miller, Mina, Selby

Western trial locations: Sturgis, Wall

Eastern trial locations near Frankfurt was not harvest because of hail.

Eastern trail location near Claire City was not planted because of exceedingly wet conditions.

Individual trial location results can be accessed online at: https://extension.sdstate.edu/spring-wheat-variety-trial-results

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S-0002-2024-04-SW-Regional-Summaries



2024 South Dakota Spring Wheat Variety Trial Results Variety List

South Dakota State University Extension

Table 1. List of spring wheat varieties tested in 2024 along with origin, agronomic, and grain quality characteristics.

	Testing a	nd Origin	Agron	omic Characte	Grain	Grain Quality		
Variety	Years tested in SD trials	Origin†- Year	Relative Heading‡ (days)	Height (inches)	Lodging Score§	Test Wt. (Ib/bu)	Protein (%)	
AP GUNSMOKE CL2	4	AP-21	1	30	2.8	53.6	15.9	
AP MURDOCK	5+	AP-19	1	29	1.7	55.6	15.1	
AP REVOLUTION	3	AP-22	1	29	1.9	56.6	15.1	
ASCEND-SD	5+	SD-21	4	34	1.9	56.3	15	
BRAWN-SD	5+	SD-22	3	32	2.1	56.4	14.5	
CAG CERES	new	CAG-24	0	30	1.6	55.1	14.7	
CAG JUSTIFY	3	CAG-21	4	32	2.3	52.4	14.4	
CAG RECKLESS	3	CAG-21	3	32	2.1	55.3	14.9	
CAG RECOIL	2	CAG-24	5	29	1.3	53.3	15.4	
CP3055	new	WF-24	9	32	1.6	49.2	14.3	
CP3099A	5+	WF-20	9	34	1.5	47.5	13.1	
CP3188	3	WF-20	4	32	3.4	52.4	13.9	
CP3322	new	WF-24	9	31	1.8	50.5	14.8	
DRIVER	5+	SD-19	5	33	1.9	54.5	14.7	
LCS ASCENT	3	LCS-21	0	30	2.3	55.5	14.5	
LCS BOOM	3	LCS-23	0	30	1.6	57.1	15.1	
LCS BUSTER	5+	LCS-20	7	32	1.6	52.4	13.9	
LCS CANNON	5+	LCS-18	0	29	1.7	56.2	15.2	
LCS DUAL	3	LCS-21	3	31	1.7	53.6	14.6	
LCS HAMMER AX	3	LCS-22	3	30	1.6	52.2	14.8	
LCS TRIGGER	5+	LCS-15	8	32	1.9	54.8	13.6	
MN-ROTHSAY	3	MN-21	6	28	1.3	54.5	15	
MN-TORGY	2	MN-20	3	31	1.8	55.8	15.4	
MS CHARGER	3	MS-23	2	30	2.5	54.5	13.7	
MS COBRA	4	MS-22	3	30	1.9	54	15.1	
MS NOVA	new	MS-24	2	29	1.8	55	15.2	
ND STAMPEDE	new	ND-24	1	31	2	54.2	14.8	
ND THRESHER	new	ND-24	5	30	2.1	54	15.3	
PFS BUNS	4	PFS-21	12	28	1.5	47.5	15.2	
PREVAIL	5+	SD-13	0	31	2	55.7	14.7	
SURPASS	5+	SD-15	0	31	2	55.1	15.1	
SY VALDA	5+	AP-15	2	30	1.8	55.4	14.6	
WB9590	5+	WB-17	1	28	1.6	53.6	15.6	
WB9606	5+	WB-20	4	31	1.8	54.4	14.7	
Trial Averages	-	-	-	25	1.5	58.3	15.2	

+ AP, AgriPro; CAG, Champion Alliance Group; LCS, Limagrain Cereal Seeds; MN, Minnesota; MS, Meridian Seeds; ND, North Dakota; PFS, Peterson Farms Seed; SD,South Dakota, WI, Winfield; WB, WestBred; and – (Year of Release).

‡ Difference in days to heading compared to Surpass (2024 eastern and central locations).

§ Lodging score: 1, perfectly standing; to 5, completely flat (2024 eastern and central locations).

¶ Test weight and protein are statewide averages.



2024 South Dakota Spring Wheat Variety Trial Results Disease Ratings

SOUTH DAKOTA STATE UNIVERSITY EXTENSION

Table 2. Spring wheat variety disease ratings.

	Disease Ratings†									
Variety	Stem Rust	2023 Leaf Rust	Tan Spot	2023-2024 Bacterial Leaf Streak	2023-2024 Fusarium Head Blight					
AP GUNSMOKE CL2	MR	4	7	7	5					
AP MURDOCK	MR	4	4	3	5					
AP REVOLUTION	R	4	5	3	3					
ASCEND-SD	MR	2	5	3	3					
BRAWN-SD	MR	3	5	3	4					
CAG CERES	-	-	-	-	-					
CAG JUSTIFY	MR	7	6	4	5					
CAG RECKLESS	MR	4	6	3	5					
CAG RECOIL	R	2	2	3	7					
CP3055	-	-	-	-	-					
СР3099А	MS	8	4	7	7					
CP3188	MS	4	6	5	6					
CP3322	-	-	-	-	-					
DRIVER	MR	2	6	3	4					
LCS ASCENT	R	4	7	5	5					
LCS BOOM	R	6	6	4	3					
LCS BUSTER	R	7	5	5	4					
LCS CANNON	R	5	5	4	5					
LCS DUAL	R	3	6	6	6					
LCS HAMMER AX	R	6	6	7	7					
LCS TRIGGER	MR	2	5	2	3					
MN-ROTHSAY	R	5	3	4	4					
MN-TORGY	MR	3	3	3	3					
MS CHARGER	R	5	4	5	5					
MS COBRA	R	4	5	4	6					
MS NOVA	-	-	-	-	-					
ND STAMPEDE	-	-	-	-	-					
ND THRESHER	-	-	-	-	-					
PFS BUNS	MR	3	4	3	6					
PREVAIL	MR	3	3	3	3					
SURPASS	MR	4	4	3	3					
SY VALDA	R	3	5	4	4					
WB9590	MR	3	7	5	7					
WB9606	R	4	4	4	7					
t Disease ratings: B, resistant: MB, moderately resistant: MS, moderately susceptible: S, susceptible: or 1, most resistant, to 9, most										

† Disease ratings: R, resistant; MR, moderately resistant; MS, moderately susceptible; S, susceptible; or 1, most resistant, to 9, most susceptible. Note: SDSU does not perform nursery screenings for all listed pathogens in each growing season.

‡ A dash (-) signifies no rating provided/available.

§ Parenthesis denote estimated ratings/rankings (X) based on externally-provided information.



2024 South Dakota Spring Wheat Variety Trial Results Eastern Summary

SOUTH DAKOTA STATE UNIVERSITY EXTENSION

Table 3. 2024 spring wheat variety performance trial results for testing sites in eastern South Dakota. Varieties ranking in the top 1/3 of each trial category are bold faced and shaded light blue.

	2022	2023		2024			2-year		3-year			
Variety	Yield	Yield	Yield	Test Wt	Protein	Yield	Test Wt	Protein	Yield	Test Wt	Protein	
	(bu/a)	(bu/a)	(bu/a)	(lbs)	%	(bu/a)	(lbs)	%	(bu/a)	(lbs)	%	
LCS TRIGGER	49.0	58.1	59.8	53.4	13.1	58.7	57.4	13.6	55.5	56.8	13.9	
BRAWN-SD	51.9	54.5	58.6	54.1	14.2	55.9	58.5	14.4	54.5	58.7	14.6	
ASCEND-SD	51.0	52.4	62.3	53.7	14.6	55.7	57.4	15.1	54.1	57.6	15.5	
SY VALDA	45.8	56.3	56.5	53.3	14.2	56.4	57.1	14.8	52.9	57	15.2	
LCS BUSTER	45.8	57.8	50.2	50.8	13.4	55.3	55.3	13.6	52.1	54.6	14	
MS CHARGER	46.1	54.0	54.3	51.3	13.8	54.2	56.4	14	51.5	56.6	14.2	
CAG JUSTIFY	46.2	55.3	51.2	48.8	14.9	53.9	54.2	15	51.4	54.3	15.3	
CAG RECKLESS	46.3	54.4	51.7	52.7	14.5	53.5	57.1	15.2	51.1	57.4	15.5	
DRIVER	47.8	53.3	49.2	51.2	14.5	51.9	56.9	15	50.5	57.2	15.2	
LCS ASCENT	45.6	52.3	51.8	52.6	14.2	52.1	57.4	14.9	50	57.5	15.1	
LCS BOOM	44.6	53.0	51	54.4	15	52.3	58.6	15.8	49.8	58.3	16	
AP REVOLUTION	42.3	51.0	58.5	55.4	14.4	53.5	58.2	15.2	49.8	57.8	15.5	
AP MURDOCK	43.8	50.7	54	53.3	14.3	51.8	56.8	15.3	49.1	56.7	15.5	
WB9606	42.8	57.0	42.3	51.2	14.6	52.1	56.9	14.7	49	56.9	14.9	
PREVAIL	45.2	49.7	51.8	53.8	14.6	50.4	57	15.1	48.7	57.2	15.2	
LCS CANNON	44.8	51.7	47.1	53.8	15.1	50.1	58.5	15.5	48.4	58.5	15.7	
LCS DUAL	44.2	55.0	39.8	49	14.5	49.9	56	14.7	48	56.2	15	
SURPASS	42.6	49.0	53.9	52.8	15	50.7	57.1	15.8	48	56.9	15.9	
AP GUNSMOKE CL2	43.8	52.2	45	48.2	15.1	49.8	55.2	16	47.8	55.2	16.3	
MN-ROTHSAY	42.1	51.7	48.6	51.7	14.1	50.7	56.5	14.9	47.8	56.5	15.3	
MS COBRA	41.9	50.0	50.3	50	14.6	50.1	56	15.6	47.3	56.1	15.8	
CP3099A	41.8	55.0	38.4	42.6	12.5	49.5	52.2	13	46.9	52.6	13.6	
LCS HAMMER AX	42.6	51.1	38.9	47.1	14.3	47.1	54.7	15	45.6	55.1	15.3	
PFS BUNS	44.0	49.7	38.6	45.2	14.2	46	51.3	15	45.3	51.1	15.4	
MN-TORGY	-	57.1	54.3	54	15.2	56.2	57.9	15.5	-	-	-	
CP3188	-	49.4	49.8	50	13.7	49.5	55	14	-	-	-	
WB9590	-	49.0	48.3	50.5	14.9	48.8	55.8	16.1	-	-	-	
CAG RECOIL	-	48.9	49.5	51.6	14.9	49.1	55	15.3	-	-	-	
ND THRESHER	-	-	53.3	51.7	15	-	-	-	-	-	-	
CAG CERES	-	-	51.4	52.6	14.2	-	-	-	-	-	-	
ND STAMPEDE	-	-	50	50.8	14	-	-	-	-	-	-	
MS NOVA	-	-	48.2	52	14.8	-	-	-	-	-	-	
CP3055	-	-	46.4	43.9	13.7	-	-	-	-	-	-	
CP3322	-	-	39.5	45.7	13.8	-	-	-	-	-	-	
Trial Average#	45.2	52.3	49.7	51.4	14.4	51.9	56.4	15.0	49.8	56.4	15.3	
LSD(0.05)†	1.8	3.0	3.9	1.3	0.5	2.5	0.5	0.3	1.7	0.4	0.2	
C.V.%‡	4.9	8.4	7.9	-	-	8.4	-	-	7.5	-	-	

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..



2024 South Dakota Spring Wheat Variety Trial Results Central Summary

SOUTH DAKOTA STATE UNIVERSITY EXTENSION

Table 4. 2024 spring wheat variety performance trial results for testing sites in central South Dakota. Varieties ranking in the top 1/3 of each trial category are boldfaced and shaded light blue.

Variety	2022	2023		2024			2-year			3-year	
	Yield	Yield	Yield	Yield Test Wt		Yield	Test Wt	Protein	Yield	Test Wt	Protein
	(bu/a)	(bu/a)	(bu/a)	(lbs)	%	(bu/a)	(lbs)	%	(bu/a)	(lbs)	%
LCS TRIGGER	64.4	73.7	55.4	56.1	13.1	64.5	57.9	12.9	64.5	58.8	13.2
BRAWN-SD	61.7	67.6	58.5	57.2	14.1	63.1	58.7	14.1	62.6	59.5	14.1
SY VALDA	60.3	69.2	58.2	56.4	14.4	63.7	57.5	14.4	62.6	58.3	14.6
ASCEND-SD	60.8	67.5	58.9	57.4	14.8	63.2	58.2	15	62.4	58.9	15.1
MS CHARGER	62.7	66.7	56.1	55.3	13.1	61.4	56.9	13.3	61.8	57.6	13.4
CAG JUSTIFY	59.9	66.3	58.9	53.4	13.8	62.6	55.2	13.8	61.7	56.2	14.1
LCS BUSTER	62.3	72.4	49	53.4	13.7	60.7	55.4	13.2	61.2	56.4	13.3
DRIVER	58.0	69.1	54.1	56	14.5	61.6	57.5	14.6	60.4	58.7	14.8
CAG RECKLESS	58.5	63.5	55.8	56.2	14.9	59.7	57.6	15	59.3	58.5	15.1
LCS ASCENT	58.3	64.8	51.6	55.9	14.2	58.2	57.5	14.6	58.2	58.3	14.6
MN-ROTHSAY	56.0	68.2	50.3	55.3	15.1	59.3	57.1	14.8	58.2	58	14.9
AP REVOLUTION	58.6	61.6	54	57	14.9	57.8	58.2	15.4	58.1	58.8	15.4
SURPASS	56.5	60.0	56.1	55.9	14.9	58	57.1	15.2	57.5	57.8	15.3
LCS DUAL	57.8	65.6	48.8	54.9	14.5	57.2	57	14.4	57.4	57.8	14.6
LCS CANNON	58.7	62.7	49.8	57	15.1	56.3	58.6	15.2	57.1	59.3	15.3
PREVAIL	56.0	59.9	55.2	56.5	14.3	57.5	57.5	14.8	57	58.1	14.9
AP GUNSMOKE CL2	58.0	63.3	49.3	54.7	15.7	56.3	56.7	15.8	56.8	57.7	15.7
AP MURDOCK	57.7	60.7	51.9	56.2	14.8	56.3	57.1	14.9	56.8	57.9	15
WB9606	58.4	68.4	43.3	55	14.4	55.9	56.9	14.3	56.7	57.9	14.3
MS COBRA	55.4	64.5	50	54.8	14.9	57.3	56.7	14.9	56.6	57.5	15.1
LCS BOOM	55.9	60.5	52.9	57.8	15	56.7	58.9	15.3	56.4	59.4	15.4
LCS HAMMER AX	55.4	64.8	45.8	53.1	14.7	55.3	55.5	14.9	55.3	56.6	15
PFS BUNS	58.4	70.4	36.4	48.7	15.2	53.4	52.5	14.2	55.1	54.1	14.3
CP3099A	53.8	70.0	38.4	48.4	12.3	54.2	52.8	12.5	54.1	54	13
MN-TORGY	-	70.8	56.3	56.9	15.1	63.6	58.1	14.8	-	-	-
CP3188	-	67.3	49.7	53.1	13.6	58.5	55.4	13.6	-	-	-
CAG RECOIL	-	66.1	52.4	53.5	15.2	59.2	55.6	14.9	-	-	-
WB9590	-	61.0	47.4	54.2	15.7	54.2	56.1	16.1	-	-	-
ND STAMPEDE	-	-	54.2	55.3	14.6	-	-	-	-	-	-
ND THRESHER	-	-	50.7	55	15.2	-	-	-	-	-	-
MS NOVA	-	-	50.6	56.2	15.2	-	-	-	-	-	-
CAG CERES	-	-	48	55.9	14.7	-	-	-	-	-	-
CP3055	-	-	43.4	49.4	14.2	-	-	-	-	-	-
CP3322	-	-	38.1	51	14.9	-	-	-	-	-	-
Trial Average#	58.4	65.3	50.1	55.1	14.7	58.8	56.9	14.6	58.6	57.7	14.7
LSD(0.05)†	1.4	3.0	2.9	0.6	0.3	2.1	0.4	0.3	1.5	0.3	0.2
C.V.%‡	3.4	6.6	8.3	-	-	7.5	-	-	6.4	-	-

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

 \dagger 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.



2024 South Dakota Spring Wheat Variety Trial Results Western Summary

SOUTH DAKOTA STATE UNIVERSITY EXTENSION

Table 5. 2024 spring wheat variety performance trial results for testing sites in western South Dakota. Varieties ranking in the top 1/3 of each trial category are boldfaced and shaded light blue.

Variety	2022	2023		2024			2-year		3-year			
	Yield	Yield	Yield	Test Wt	Protein	Yield	Test Wt	Protein	Yield	Test Wt	Protein	
	(bu/a)	(bu/a)	(bu/a)	(lbs)	%	(bu/a)	(lbs)	%	(bu/a)	(lbs)	%	
LCS BOOM	52.1	65.4	39.0	58.3	15.6	52.2	58.6	15.6	52.2	58.5	15.1	
ASCEND-SD	52.0	61.6	38.9	56.6	15.9	50.2	57.4	15.9	51.0	57.4	15.5	
WB9606	55.2	58.2	36.6	56.2	15.5	47.4	57.1	15.7	50.7	56.8	14.8	
MS CHARGER	50.5	64.6	36.1	56.2	14.7	50.4	57.1	15.0	50.4	56.8	14.3	
LCS CANNON	55.1	56.6	36.6	57.3	15.3	46.6	58.4	15.6	50.2	58.3	15.1	
SY VALDA	51.8	60.5	37.3	55.6	15.6	48.9	56.5	15.8	50.1	56.4	15.3	
LCS BUSTER	51.2	65.0	33.4	51.8	14.8	49.2	53.5	14.9	50.1	53.3	14.3	
BRAWN-SD	49.6	61.3	39.5	57.0	15.7	50.4	58.2	15.6	50.0	58.3	15.0	
LCS ASCENT	52.3	57.0	37.3	57.5	15.3	47.2	57.7	15.3	49.3	57.7	14.8	
AP GUNSMOKE CL2	50.4	58.8	38.1	56.8	16.9	48.5	57.2	16.6	49.3	56.8	16.1	
MN-ROTHSAY	48.9	64.8	33.1	55.6	15.7	48.9	56.7	15.6	48.9	56.8	15.2	
CAG RECKLESS	50.5	58.0	37.2	56.2	15.4	47.6	56.9	15.4	48.8	57.3	15.0	
CAG JUSTIFY	53.0	55.9	35.3	54.1	15.2	45.6	55.3	15.6	48.8	55.0	15.2	
MS COBRA	47.9	62.3	36.2	56.4	16.1	49.3	57.2	16.0	48.7	57.2	15.4	
LCS TRIGGER	51.2	61.2	31.9	53.4	15.3	46.5	55.3	15.3	48.5	55.5	14.8	
AP MURDOCK	50.7	59.0	34.7	56.7	16.3	46.8	57.2	16.1	48.5	57.0	15.7	
SURPASS	50.8	57.3	36.0	55.8	15.6	46.6	56.6	15.9	48.4	56.4	15.3	
PREVAIL	48.1	62.0	35.4	55.8	15.7	48.7	56.7	15.5	48.4	56.7	15.0	
LCS HAMMER AX	51.2	54.4	37.4	55.4	15.4	45.9	56.1	15.3	48.2	56.1	14.8	
DRIVER	47.9	58.9	34.6	54.9	15.2	46.8	56.2	15.3	47.2	56.7	14.9	
PFS BUNS	55.3	56.1	21.3	47.4	16.1	38.7	50.8	16.0	45.8	51.3	15.5	
AP REVOLUTION	45.3	55.3	37.0	57.0	16.1	46.1	58.0	15.9	45.8	57.4	15.5	
LCS DUAL	49.9	50.5	33.6	55.6	14.9	42.0	56.7	15.2	45.4	56.9	14.6	
CP3099A	51.9	40.3	33.4	50.6	15.0	36.8	53.4	15.4	43.3	52.7	14.8	
MN-TORGY	-	64.3	35.4	55.4	16.1	49.9	56.6	15.7	-	-	-	
CAG RECOIL	-	63.9	38.9	54.7	16.2	51.4	55.2	15.7	-	-	-	
CP3188	-	53.9	39.8	53.5	14.6	46.9	55.2	15.1	-	-	-	
WB9590	-	52.4	35.0	55.7	16.1	43.7	56.8	16.2	-	-	-	
ND STAMPEDE	-	-	40.4	55.1	16.1	-	-	-	-	-	-	
MS NOVA	-	-	36.4	55.9	15.8	-	-	-	-	-	-	
CAG CERES	-	-	34.5	56.2	15.1	-	-	-	-	-	-	
CP3055	-	-	33.7	54.2	15.2	-	-	-	-	-	-	
CP3322	-	-	33.3	54.2	15.6	-	-	-	-	-	-	
ND THRESHER	-	-	31.4	54.3	16.0	-	-	-	-	-	-	
Trial Average#	50.8	57.1	35.9	55.5	15.6	46.8	56.4	15.7	48.6	56.4	15.1	
LSD(0.05)†	3.8	5.3	2.8	1.3	0.5	2.9	0.8	0.5	2.4	0.5	0.3	
C.V.%‡	9.5	9.6	8.0	-	-	8.9	-	-	9.4	-	-	

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.