



K-STATE

Research and Extension

South-Central Kansas Replicated Wheat Variety Tests

2024

Andale, Clearwater, Haysville, Newton, Belle Plaine, Caldwell

Special thanks to our Wheat Plot Sponsors:



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SC KS Wheat Plots - Yield

(bushels/acre)

Variety	Source	All	Andale	Clearwater	Haysville	Newton	Belle Plaine	Caldwell
Rock Star	Polansky	75.4	78.7	72.4	85.3	94.4	74.6	47.1
KS Providence	KWA KWA	74.8	77.5	68.7	80.8	98.3	73.7	50.0
KS Bill Snyder	WestBred	73.6	74.3	69.8	78.5	100.5	72.3	45.9
WB4523	LCS	73.4	77.1	71.5	74.1	91.0	80.3	45.8
LCS Atomic AX	AgriPro	73.4	79.2	63.4	84.9	99.3	64.9	48.6
AP Prolific	LCS	73.0	76.7	67.6	76.2	97.4	68.0	52.1
LCS Helix AX	WestBred	71.3	84.2	71.9	77.4	84.2	61.9	48.5
WB4699	AgriPro	70.6	76.5	64.4	62.8	100.6	77.6	41.5
AP24 AX	OGI LCS	70.4	81.3	65.7	66.3	85.2	71.4	52.3
High Cotton	WestBred	69.9	72.5	75.5	72.6	91.8	58.4	48.4
LCS Warbird AX	KWA	69.4	75.0	68.9	69.1	91.2	61.8	50.5
WB4422	AgriPro	69.2	82.1	60.2	61.6	87.9	73.2	50.5
KS Ahearn	OGI	69.0	78.4	68.6	61.0	88.6	70.1	44.6
AP18 AX	AgriPro	68.8	74.7	57.6	78.2	86.4	65.2	50.4
Showdown	KWA	68.5	78.7	71.9	70.7	79.0	58.1	52.7
Bob Dole	AgriMaxx	68.3	71.0	66.7	69.8	85.1	68.5	49.0
KS Mako	PlainsGold	67.6	67.0	70.5	64.1	93.3	64.9	46.7
AM Cartwright	WestBred	67.5	70.2	66.6	69.5	92.2	65.5	40.8
Kivari AX	LCS OGI	67.0	76.6	62.7	60.3	76.0	73.9	52.6
WB4401	PlainsGold	67.0	68.2	62.7	64.1	85.2	77.7	44.2
LCS Steel AX	KWA OGI	66.8	83.1	49.5	53.0	97.7	67.9	49.9
Gallagher	AGSECO	66.6	71.2	62.8	60.3	86.1	71.4	47.9
Canvas	LCS OGI	66.5	77.4	60.6	63.1	89.9	61.5	46.3
KS Hatchett		66.0	72.6	61.3	64.8	83.7	66.0	47.0
Strad CL+		64.7	65.6	61.2	79.7	83.5	56.8	41.3
AG Radical		63.7	82.0	60.7	49.0	72.4	69.8	47.4
LCS Runner		62.1	69.8	60.4	50.7	81.9	58.6	50.2
Doublestop CL+		61.6	68.6	60.0	60.5	84.9	51.2	44.6
Average		68.8	75.4	65.1	68.2	88.8	67.3	47.7
Max		75.4	84.2	75.5	85.3	100.6	80.3	52.7
Min		61.6	65.6	49.5	49.0	72.4	51.2	40.8

*Values, highlighted in gray and bold, belong statistically to the highest test weight group. We cannot say values within the group are different from each other

Plot Information

Andale

Planted: 10/18/2023 **Harvested:**

6/14/2024 **Planting Rate:** 1.2

million seeds/ac **Tillage:**

Conventional **Previous Crop:** Wheat

Fertilizer: (per acre)

Pre-Plant

- 50 lbs N, 30 lbs P, 15 lbs K, 2 lbs Zn

Planting

- 8 gal 10-34-0

Topdress

- 30 lbs N + 6 lbs S

Fungicide: Yes

Clearwater

Planted: 10/18/2023

Harvested: 6/14/2024

Planting Rate: 1.2 million seeds/ac

Tillage: No-Till

Previous Crop: Corn

Fertilizer: (per acre)

Planting

- 9 gal 10-34-0

Topdress

- 34 gal 28% + 1 gal ATS

Fungicide: No

Haysville

Planted: 10/23/2023

Harvested: 6/12/2024

Planting Rate: 1.2 million seeds/ac

Tillage: Reduced Till

Previous Crop: Cover Crop

Fertilizer: (per acre)

Pre-Plant

- 8 gal 10-34-0

Topdress

- 45 lbs 46-0-0

Fungicide: No

Newton

Planted: 10/18/2023

Harvested: 6/17/2024

Planting Rate: 1.2 million seeds/ac

Tillage: No-Till

Previous Crop: Corn

Fungicide: Yes

Plot Information

Belle Plaine

Planted: 10/19/2023

Harvested: 6/12/2024

Planting Rate: 1.2 million seeds/ac

Tillage: No-Till

Previous Crop: Corn

Fertilizer: (per acre)

Pre-Plant

- 60 lbs N

Planting

- 9 gal 10-34-0

Topdress

- 55 lbs N

Fungicide: Yes

Caldwell

Planted: 10/19/2023

Harvested: 6/10/2024

Planting Rate: 1.2 million seeds/ac

Tillage: Conventional

Previous Crop: Sorghum

Fertilizer: (per acre)

Planting

- 8 gal/ac 10-34-0

Topdress (2/28)

- 60 lbs UAN

Topdress (4/9)

- 45 lbs UAN

Fungicide: Yes

Andale Wheat Plot Soil Test

Andale 0-6" / 0-24"
Sampled: 11/13/2023

<i>Analysis</i>	<i>Value Found</i>	<i>Analysis</i>	<i>Value Found</i>
Soil pH (1:1, soil:water)	5.6	Buffer pH (Sikora)	6.8
Organic Matter (LOI), %	1.9%	Nitrate-N sub-surface	10 ppm
Phosphorus (P) Mehlich-3	44 ppm	Potassium (K) Calcium	201 ppm
Zinc (Zn) DTPA Extraction	1.0 ppm	(Ca) Sodium (Na)	1728 ppm
Magnesium (Mg)	233 ppm	Sulfur (S) sub-surface	14 ppm
Aluminum (Al)	0.1 ppm	Cation Exch. Capacity	3 ppm
Chloride (Cl) sub-surface	8 ppm	(Summation)	16.2 meq/100g

Clearwater Wheat Plot Soil Test

Clearwater 0-6" / 0-24"
Sampled: 11/13/2023

<i>Analysis</i>	<i>Value Found</i>	<i>Analysis</i>	<i>Value Found</i>
Soil pH (1:1, soil:water)	6.2	Buffer pH (Sikora)	6.9
Organic Matter (LOI), %	2.3%	Nitrate-N sub-surface	1 ppm
Phosphorus (P) Mehlich-3	22 ppm	Potassium (K) Calcium	177 ppm
Zinc (Zn) DTPA Extraction	1.4 ppm	(Ca) Sodium (Na)	1601 ppm
Magnesium (Mg)	260 ppm	Sulfur (S) sub-surface	14 ppm
Aluminum (Al)	0.1 ppm	Cation Exch. Capacity	2 ppm
Chloride (Cl) sub-surface	9 ppm	(Summation)	15.0 meq/100g

Haysville Wheat Plot Soil Test

Haysville 2-8"

<i>Analysis</i>	<i>Value Found</i>	<i>Analysis</i>	<i>Value Found</i>
Soil pH (1:1, soil:water)	6.4	Nitrate-N	27.9 ppm 143
Organic Matter (LOI), %	1.3%	Potassium (K)	ppm 1687
Phosphorus (P) Mehlich-3	35 ppm	Calcium (Ca)	ppm 25 ppm
Zinc (Zn) DTPA Extraction	0.7 ppm	Sodium (Na)	10 ppm 0.8
Magnesium (Mg)	186 ppm	Sulfur (S)	ppm
Iron (Fe)	37 ppm	Copper (Cu)	0.26 ppm
Manganese (Mn)	2.4 ppm	Boron (B)	

Newton Wheat Plot Soil Test

Newton 0-6" / 0-24"
Sampled: 11/15/2023

Analysis	Value Found	Analysis	Value Found
Soil pH (1:1, soil:water)	5.2 4.5%	Buffer pH (Sikora)	6.5
Organic Matter (LOI), %	270 ppm 10	Nitrate-N sub-surface	8 ppm
Magnesium (Mg)	ppm loam	Potassium (K) Calcium	311 ppm
Chloride (Cl) sub-surface	32% 47%	(Ca) Sodium (Na)	1819 ppm
Texture - Soil Type	21%	Sulfur (S) sub-surface	24 ppm
Sand		Cation Exch. Capacity	6 ppm
Silt			
Clay		(Summation)	20.5 meq/100g

Belle Plaine Wheat Plot Soil Test

Belle Plaine 0-6" / 0-24"
Sampled: 11/14/2023

Analysis	Value Found	Analysis	Value Found
Soil pH (1:1, soil:water)	5.2	Buffer pH (Sikora)	6.6
Organic Matter (LOI), %	2.7%	Nitrate-N sub-surface	8 ppm
Phosphorus (P) Mehlich-3	51 ppm	Potassium (K)	213 ppm
Zinc (Zn) DTPA Extraction	4.0 ppm	Sulfur (S) sub-surface	4 ppm
Chloride (Cl) sub-surface	8 ppm		

Caldwell Wheat Plot Soil Test

Analysis	Value Found	Analysis	Value Found
Soil pH (1:1, soil:water)	5.5	Buffer pH (Sikora)	6.7
Organic Matter (LOI), %	1.7%	Potassium (K)	154 ppm
Phosphorus (P) Mehlich-3	35 ppm	Calcium (Ca)	1,100 ppm
Magnesium (Mg)	163 ppm	Cation Exch. Capacity	9.8

Haysville Additional Notes

March 28, 2024 - Plots were rated for establishment (1=Poor 2=Moderate 3=Very Good)

Variety	AG	Rating	Variety	Rating	Variety	Rating	Variety	Rating
Radical		3	Doublestop CL+	3	KS Mako	1.7	Rock Star	2.7
AM Cartwright		2.3	Gallagher	2.3	KS Providence	3	Showdown	3.3
AP Prolific		3.3	High Cotton	2.7	LCS Atomic AX	2.7	Strad CL+	3
AP18 AX		2.7	Kivari AX	2.7	LCS Helix AX	2.3	WB4401	1.7
AP24 AX		2.7	KS Ahearn	3.3	LCS Runner	2.3	WB4422	3.3
Bob Dole		2.7	KS Bill Snyder	2.7	LCS Steel AX	1.3	WB4523	1.7
Canvas		2.3	KS Hatchett	3	LCS Warbird AX	3.3	WB4699	2.3

May 6, 2024 - Plots were rated for Stripe Rust Resistance & Percent Infestation

Variety	Resist %		Variety	Resist %		Variety	Resist %		Variety	Resist %	
AG Radical	8	72	Doublestop CL+	3	3	KS Mako	8	17	Rock Star	2	1
AM Cartwright	6	20	Gallagher	7	27	KS Providence	7	6	Showdown	7	6
AP Prolific	7	17	High Cotton	5	2	LCS Atomic AX	2	2	Strad CL+	4	2
AP18 AX	3	3	Kivari AX	7	73	LCS Helix AX	5	12	WB4401	3	13
AP24 AX	8	13	KS Ahearn	7	10	LCS Runner LCS	8	43	WB4422	7	67
Bob Dole	8	18	KS Bill Snyder	7	4	Steel AX LCS	8	43	WB4523	2	7
Canvas	7	27	KS Hatchett	8	73	Warbird AX	6	8	WB4699	8	47

Resistance from 0 (high resistance) to 9 (high susceptibility); % = Percent of leaf infested with stripe rust

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