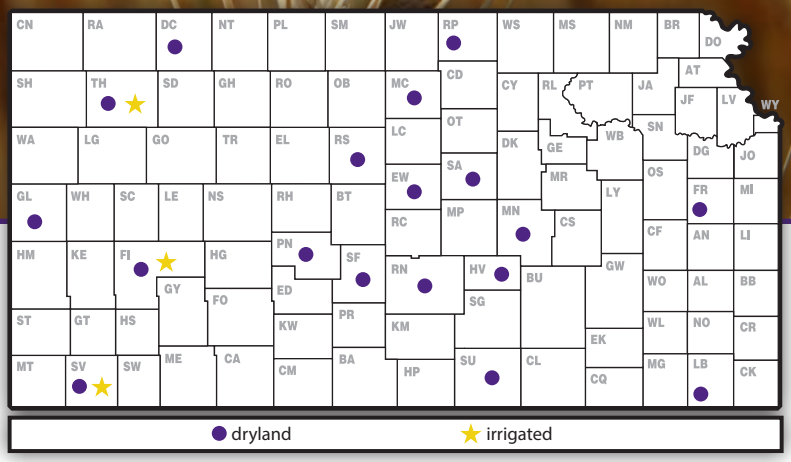
2022 Kansas Performance Tests with

Winter Wheat Varieties



Report of Progress 1172

K-STATE
Research and Extension

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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2022 WHEAT CROP REVIEW

Weather and Crop Development

Fall growing conditions

The month of September 2021 had 1-5 inches of precipitation across the state of Kansas. In the western part of the state, this precipitation mostly occurred before September 15. While moisture was available, growers in western Kansas planted wheat fields fairly early to ensure good emergence and a decent stand establishment in the fall. However, the remainder of the fall was dry in the western portion of the state, with precipitation totals of less than one inch. Meanwhile in central Kansas, the remainder of the fall had good precipitation, with another 1-4 inches accumulating by December 31. These conditions had two main consequences: fields in central Kansas emerged and established during the fall almost irrespective of planting date (with exception of very late planted fields), and fields in western Kansas that were planted in mid-October or later did not emerge until the next precipitation event, which did not happen until the spring. Temperatures during the fall were 4-6 degrees warmer than average, increasing the amount of forage biomass produced by early planted wheat crops when moisture was available.

Winter growing conditions

Opposite to the conditions experienced in the fall, temperatures were 1-4 degrees colder than the long-term average during the period of January 1 to March 31, 2022. Additionally, western Kansas continued dry with 0-2 inches of precipitation accumulated during this period. Dry conditions expanded into central Kansas, as the majority of the crop received less than 3 inches of precipitation during this time. The combination of dry and cool conditions extended the dormant period of the wheat crop: The majority of the varieties evaluated by K-State Research and Extension did not reach the first hollow stem stage of development until March 26 in Hutchinson, which compares to as early as March 6 in years with a warm winter.

Early spring growing conditions

The spring started with freezing temperatures during the first two weeks of April, when as many as 11 hours below 32°F were accumulated. As the majority of the wheat in central, south central, and southwest Kansas were already going though stem elongation, these freezing temperatures caused low levels of freeze damage to wheat in these regions. The cool and dry conditions experienced during the winter extended until the first week of May, overall delaying the reproductive development of the crop and leading to severe drought stress. In addition to the drought stress, the second week of May was extremely hot, with temperature averages as many as 5 degrees above the long-term mean for the period in parts of central, south central, and southwest Kansas.

The combination of a season-long drought stress and a short period of extreme heat stress in mid-May, resulted in several wheat fields in the western portion of the state (west of a line from Smith to Pratt counties) showing s evere symptoms such as younger leaves curled, abortion of older leaves, and yellowing of lower canopy, extremely reduced plant height and biomass, and a delayed development that accelerated through the flowering period due to the heat stress. Many of the fields across western Kansas were into the reproductive stages of development (flowering and grain elongation) only measuring 9-12 inches tall due to the prolonged stress. From a regional perspective, the worst crop conditions occurred in far southwest Kansas, where season-long drought stress impacted the crop worse than in other regions. However, severely drought stress crops occurred as far east as Pratt County. From a cropping systems perspective, the extreme drought caused large differences on the yield potential of the wheat crop as function of previous crop and the presence of a fallow period. In central Kansas, wheat fields planted after a previous wheat or canola crops were showing much better yield potential than wheat fields planted continuously after a soybean crop. These differences were even more apparent in the western portion of the state, where wheat planted after a long-term fallow period may have had a 50-60 bushel per acre yield potential, as compared to a 15-20 bushel per acre yield potential in continuous wheat (3-month fallow), versus a failed crop on wheat after corn (no fallow).

Grain filling period

Departure from average precipitation continued below normal in the western portion of the state during the remaining of May and June, but as much as 5 inches of rainfall accumulated in portions of western Kansas, helping the wheat crop maintain some of its yield potential. In central Kansas, precipitation amounts during the remaining of May and during June were above normal, with as much as 13 inches received. While this may have been excessive and lead to waterlogging in some specific regions of central Kansas, for the most part this precipitation was beneficial and helped the crop during the grain filling period. These conditions were coupled with below average temperatures in late May and early June, and near average temperatures during the entire month of June. Combined, precipitation

and temperature regimes after the initial heat stress of mid-May were near ideal for grain yield development, ensuring some grain production despite an already limited yield potential due to the season-long drought stress. (Romulo Lollato. Kansas State University Extension Wheat Specialist)

Diseases

Overall, yield losses to disease were lower than average during the 2021-22 growing season. That being said, there was an above-average amount of wheat streak mosaic virus in central and southwest Kansas. This outbreak could have been partially driven by rainfall in September (leading to an increased amount of volunteer wheat prior to planting) and warmer than average fall temperatures (potentially keeping curl mites active longer). Although many infections likely took place in the fall, symptoms were not apparent in most central Kansas locations until the weather warmed in May.

In addition to wheat streak mosaic virus, barley yellow dwarf virus was also present statewide in moderate levels. Stripe rust remained at trace levels this season in Kansas. Stripe rust was likely suppressed due to low overall regional inoculum (low disease levels in Texas and Oklahoma), unseasonably dry weather through April, and above average temperatures in May. Leaf rust levels also remained trace this season. Fusarium head blight was detectable in eastern Kansas, particularly in fields with corn residue, but levels remained generally low. Common bunt, also known as stinking smut, has emerged for a third season as a problem for many producers after harvest. (Kelsey Andersen, Extension Plant Pathology)

Insects

Wheat planted early in fall 2021, was subject to attack by grasshoppers, which were numerous in 2021, plus armyworms. Armyworms were more destructive on wheat (and brome) throughout the entire state than they have been probably in about 20 years. Armyworm populations started increasing in brome and in volunteer wheat. This prompted many producers to add an insecticide to their usual volunteer wheat herbicide to help control both the volunteer wheat and armyworms. However, many didn't, and armyworms did cause more insecticide applications in early planted wheat than usual.

Wheat streak mosaic also seems to be causing more concern around the state. The virus complex that causes the disease are vectored by wheat curl mites. These mites cannot fly, run, or jump and thus are mostly only able to infest new plants that are adjacent to the plants they are on, or more commonly, spread by wind. Thus, eradicating volunteer wheat is crucial in controlling wheat curl mites/wheat streak mosaic. (Jeff Whitworth, Kansas State University Department of Entomology)

Harvest Statistics

The Kansas Agricultural Statistics' July estimate of the 2022 crop was 267 million bushels from 6.85 million acres, down 27% from last year's crop. Yield per harvested acre is expected to average 39 bushels, down 12 bushels from last year's final yield. (July 2022, *Crops Report*, Kansas Agricultural Statistics)

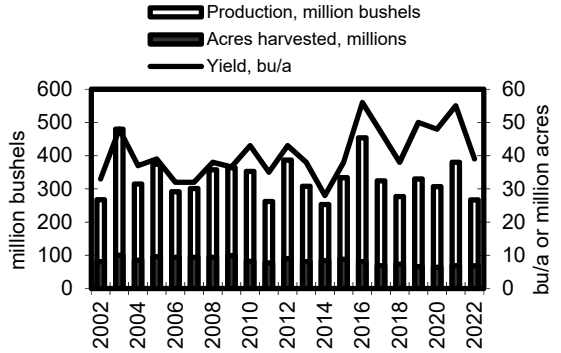

Figure 1. Historical Kansas wheat production

SY Monument remained the top-seeded variety in Kansas for the fourth consecutive year, accounting for 6.8% of the state's planted acres. WB Grainfield remained in second place at 5.1%. Bob Dole ranked third at 3.5%. Langin and Winterhawk tied for fourth place with 2.5% of the seeded acreage in Kansas. (March 2022, *Wheat Variety*, Kansas Agricultural Statistics)

Acreage Distribution

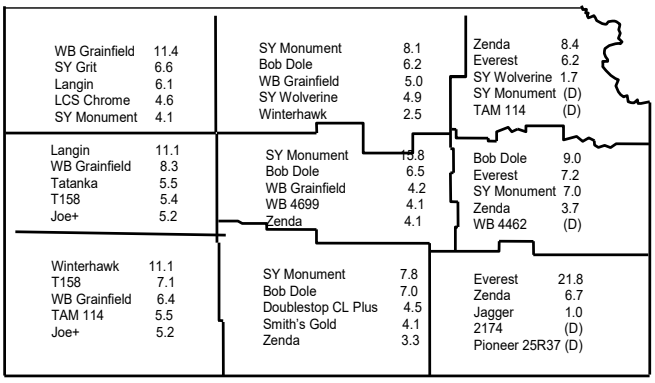

Figure 2. Leading wheat varieties in Kansas; percentage of seeded acreage for 2022 crop

2022 PERFORMANCE TESTS

The Kansas Agricultural Experiment Station annually compares both new and currently grown varieties in the state's major crop-producing areas. These performance tests generate unbiased performance information designed to help Kansas growers select wheat varieties suited for their area and conditions.

Site descriptions and management practices for each site are summarized in Table 3. One-year or one-location results can be misleading because of the possibility of unusual weather or pest conditions. **Be sure to keep extenuating environmental conditions in mind when examining test results.** For more information please visit: *agronomy.ksu.edu/services/crop-performance-tests.*

Varieties

Public varieties are selected for inclusion in the tests on the basis of several criteria. Most represent new or established varieties from Oklahoma, Texas, and Colorado with potential for successful use in Kansas. Some are included as long-term checks. Others are entered at the request of the originating institution.

Originators or marketers enter privately developed varieties voluntarily. Entrants choose both the entries and test sites. The 2022 entrants are listed in Table 1.

Results and Variety Characterization

Results from Kansas tests are presented in Tables 4 through 9. Yields are reported as bushels per acre (60 lb/bu) and are adjusted to a moisture content of 13% where moistures were reported at harvest. Yields also are converted to percentages of the test average to speed recognition of the highest-yielding entries. Multi-year averages are presented for those varieties entered more than 1 year.

Additional information such as test weight, heading date, and plant height is helpful for fine-tuning variety comparisons. Planting varieties with a range of maturities helps minimize weather risks.

At the bottom of each table is the (0.05) least significant difference (LSD) for each column of replicated data. One can think of the LSD as a "margin of error" that shows how big the difference between two varieties must be for one to be 95% confident that the difference is real. The use of the LSD is intended to reduce the chance of overemphasizing small differences. Small variations in soil structure, fertility, water-holding characteristics, and other test-site characteristics can cause considerable yield variation among plots of one variety.

Electronic Access

To access crop performance testing information electronically, visit the website at:
agronomy.ksu.edu/services/crop-performance-tests

Research and Duplication Policy

When companies submit entries, permission is given to Kansas State University to test varieties and/or hybrids designated on the entry forms in the manner indicated in the test announcements. Seed submitted for testing should be a true sample of the seed being offered for sale.

All results from Kansas Crop Performance Tests belong to the University and the public and shall be controlled by the University to produce the greatest benefit to the public. Performance data may be used in the following ways: 1) Tables may be reproduced in their entirety, provided the source is referenced and data are not manipulated or reinterpreted; and 2) advertising statements by an individual company about the performance of its entries may be made as long as they are accurate statements about the data as published, with no reference to other companies' names or cultivars. In both cases, the following must be included with the reprint or ad citing the appropriate publication number and title: "See the official Kansas State University Agricultural Experiment Station and Cooperative Extension Service Report of Progress 1172 '2022 Kansas Performance Tests with Winter Wheat Varieties,' or the Kansas Crop Performance Test website, *agronomy.ksu.edu/services/crop-performance-tests* for details. Endorsement or recommendation by Kansas State University is not implied."

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Table 1. Entrants in the 2022 Kansas wheat performance tests

AgriMAXX Wheat Company
7167 Highbanks Road
Mascoutah, IL 62258
855-629-9432

AgriPro Wheat, Inc.
11783 Ascher Rd.
Junction City, KS 66441
620-532-6283

Agricultural Research Center-KAES
1232 240th Ave.
Hays, KS 67601
785-625-3425

AGSECO
P.O. Box 7
Girard, KS 66743
620-724-6223

Beachners Grain, Inc
2600 Flynn Drive
Parsons, KS 67357
620-421-1170

CROPLAN
4001 Lexington Ave N
Arden Hills, MN 55126
651-481-2222

Kansas Wheat Alliance
1900 Kimball Avenue
Manhattan, KS 66502
785-320-4080

Limagrain Cereal Seeds
2040 SE Frontage Road
Fort Collins, CO 80525
970-231-8875

Meridian
16553 37th St SE, Suite 3
Mapleton, ND 58059
866-282-7333

Oklahoma Genetics, Inc
P.O. Box 2113
Stillwater, OK 74076-2113
405-744-7741

PlainsGold
4026 S. Timberline Road
Fort Collins, CO 80525
970-702-1460

Polansky Seed, Inc
2729 M Street
Belleville, KS 66935
785-527-2271

Watley Seed Company
10590 Texas HWY 15
Spearman, TX 79081
806-659-3838

WestBred-Bayer Crop Sci.
800 North Lindbergh Boulevard
St. Louis, MO 63167
314-694-1000

Table 2. Comparisons of leading winter wheat varieties--agronomy and quality

Variety[1]	% of Kansas acres 2022	Agronomic ratings[2]			Relative milling and baking quality[3]	Resistance or tolerance to:[2]											
		Straw strength[2]	Maturity	Height		Soil-borne mosaic	Spindle streak mosaic	Wheat streak mosaic	Barley yellow dwarf	Leaf rust	Stem rust	Septoria Stripe rust	Septoria tritici blotch	Tan spot	Powdery mildew	Head scab	Hessian fly
SY Monument	6.8	5	8	6	AC	1	1	7	6	4	5	5	4	5	5	7	7
WB Grainfield	5.1	3	6	7	AC	1	1	8	7	6	7	7	6	6	6	7	8
Bob Dole	3.5	5	5	8	EX	1	--	8	7	1	1	1	3	3	5	5	9
Langin	2.5	6	5	3	EX	1	1	7	--	7	8	3	7	8	7	8	8
Winterhawk	2.5	5	5	8	AC	1	1	7	5	7	6	6	7	6	6	7	3
SY Wolverine	2.4	1	3	3	AC	1	--	5	5	4	1	7	4	4	3	9	9
Everest	2.3	5	1	6	LD	1	1	7	4	3	8	8	4	7	3	4	6
T158	2.1	1	3	5	AC	2	2	5	5	8	8	3	7	4	2	8	4
Zenda	2.1	2	4	6	AC	1	1	7	5	3	4	4	4	5	5	4	5
WB 4515	1.8	2	7	5	AC	1	--	9	3	7	1	5	5	5	9	9	5
Joe+	1.6	2	7	7	AC	8	8	6	7	7	3	8	3	8	5	7	2
Doublestop CL Plus	1.5	2	9	7	AC	1	1	6	6	3	2	4	6	6	5	8	9
LCS Chrome	1.5	3	8	7	AC	1	1	7	7	2	2	4	4	4	6	7	1
TAM 114	1.3	4	6	6	EX	8	8	7	6	4	7	3	5	7	5	7	7
Tatanka	1.3	6	5	5	AC	1	1	7	5	6	2	2	7	7	7	7	9
WB 4699	1.3	--	7	1	AC	3	--	5	3	3	--	--	--	3	1	5	5
SY Grit	1.2	1	5	7	AC	1	1	7	7	6	2	7	5	4	7	7	9
LCS Mint	1.1	5	5	7	AC	1	1	6	7	7	4	5	5	5	6	8	9
Smith's Gold	1.0	5	5	5	EX	1	--	--	5	3	1	1	3	7	3	9	1
Oakley CL	0.9	6	7	7	AC	7	7	3	6	5	2	4	5	6	2	5	9
Avery	0.8	5	7	7	AC	1	1	5	7	8	8	8	--	7	3	7	9
SY Rugged	0.7	5	3	1	EX	1	--	7	9	3	1	1	7	7	7	9	9
TAM 112	0.7	4	2	5	AC	8	8	5	7	8	3	8	5	6	1	8	8
TAM 111	0.6	2	4	6	AC	8	8	7	7	8	3	8	5	6	6	7	6
WB 4721	0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
WB 4792	0.5	--	7	5	EX	8	--	5	3	1	--	--	--	5	7	9	3
Byrd	0.5	1	5	5	AC	2	2	5	7	8	8	8	--	7	3	7	9
Canvas	0.5	1	5	3	EX	5	--	1	--	7	1	1	--	--	--	--	--
KS Dallas	0.5	5	5	5	AC	9	--	1	2	1	1	5	--	--	7	9	7
Gallagher	0.5	2	4	5	AC	1	1	7	6	3	3	3	5	7	6	7	1
Blends	13.6																
Other White	0.8																
Other Red	31.8																
Other Soft	2.5																
[*]Hard white variety	Scale:	1=Best 9=Poor	1=Early 9=Late	1=Short 9=Tall		Scale:	1=Most resistant/tolerant 9=Least resistant/tolerant										

[1] Varieties and percentage seeded acreage from the March 2021 wheat variety survey, Kansas Agricultural Statistics, Topeka, KS.

[2] Ratings by Andersen et al., K-State Plant Pathology. Final ratings and descriptions of disease and insect pests are available in "Wheat Variety Disease and Insect Ratings 2021" Publication MF991 from Kansas State University.

[3] Ratings from K-State Wheat Quality Laboratory and USDA-ARS Hard Winter Wheat Quality Laboratory. EX= excellent baking quality; AC=acceptable baking quality; LD= least desirable baking quality.

Table 3. 2022 NORTH CENTRAL Kansas dryland winter wheat performance test

Brand / Name	BL[1]	BE[2]	Av.	BL	BE	Av.	BL	BE	Av.	BL
	yield (bu/a)			% of test average			tw (lb/bu)			ht (in)
AGRIMAXX										
CARTWRIGHT	23.0	78.0	50.5	93.0	93.8	93.4	54.3	58.8	56.5	18.6
AGRIPRO										
AP BIGFOOT	21.9	86.7	54.3	88.5	104.3	96.4	55.4	59.3	57.4	18.6
AP EVERROCK	24.2	79.3	51.7	97.5	95.3	96.4	54.8	59.3	57.0	18.6
AP PROLIFIC	26.3	87.7	57.0	106.1	105.6	105.8	55.4	58.4	56.9	20.0
AP ROADRUNNER	23.3	79.3	51.3	94.2	95.3	94.8	53.6	59.4	56.5	21.2
AP18 AX	19.1	80.5	49.8	77.2	96.8	87.0	54.5	58.5	56.5	18.6
SY WOLVERINE	27.5	83.3	55.4	110.9	100.2	105.5	56.1	60.0	58.0	18.2
AGSECO										
AG ICON	25.2	81.4	53.3	101.7	97.9	99.8	55.4	59.9	57.6	20.0
AG RADICAL	24.0	79.5	51.7	96.7	95.6	96.2	54.2	59.0	56.6	20.4
KWA										
KS PROVIDENCE	28.8	83.1	55.9	116.2	99.9	108.1	54.7	59.5	57.1	18.4
KS AHEARN	28.2	88.5	58.3	113.9	106.4	110.1	54.5	59.1	56.8	17.8
KS HATCHETT	23.6	71.7	47.6	95.1	86.2	90.7	56.4	60.0	58.2	19.8
ZENDA	28.0	70.9	49.4	113.1	85.3	99.2	55.7	60.9	58.3	21.0
LIMAGRAIN										
LCS ATOMIC AX	26.3	87.8	57.1	106.3	105.6	106.0	56.1	59.7	57.9	20.0
LCS CHROME	23.9	85.1	54.5	96.3	102.4	99.3	54.5	59.1	56.8	22.4
LCS HELIX AX	21.9	91.3	56.6	88.4	109.8	99.1	56.8	60.1	58.5	17.2
LCS JULEP	25.3	81.6	53.4	102.1	98.2	100.1	55.8	60.2	58.0	21.6
LCS PHOTON AX	21.5	71.9	46.7	87.0	86.5	86.8	56.0	60.8	58.4	20.6
LCS RUNNER	27.6	92.1	59.8	111.4	110.7	111.1	55.6	59.5	57.5	19.6
LCS STEEL AX	24.7	90.3	57.5	99.7	108.6	104.2	53.1	58.6	55.9	23.6
LCS VALIANT	24.8	76.6	50.7	99.9	92.1	96.0	54.9	59.5	57.2	19.6
MERIDIAN										
MS MAVERICK	31.1	92.8	62.0	125.5	111.7	118.6	55.0	59.9	57.5	21.4
OGI										
DOUBLESTOP CL PLUS	23.9	78.7	51.3	96.5	94.7	95.6	55.6	59.4	57.5	23.2
SHOWDOWN	25.3	87.2	56.2	102.0	104.9	103.5	55.4	58.8	57.1	20.0
POLANSKY										
HIGH COUNTRY	21.7	82.0	51.8	87.6	98.6	93.1	56.4	60.2	58.3	18.4
PARADISE	20.1	77.3	48.7	81.0	93.0	87.0	55.7	59.7	57.7	18.2
ROCK STAR	23.9	90.3	57.1	96.3	108.6	102.5	53.4	58.7	56.1	19.8
WESTBRED										
WB4269	29.9	72.5	51.2	120.6	87.3	104.0	56.3	59.6	58.0	20.0
WB4401	25.3	92.0	58.7	102.2	110.7	106.5	53.8	60.4	57.1	19.4
WB4422	21.3	88.3	54.8	86.0	106.2	96.1	56.3	60.4	58.3	20.2
WB4523	25.1	82.4	53.7	101.3	99.1	100.2	54.6	59.7	57.1	17.6
WB4595	25.9	88.7	57.3	104.5	106.7	105.6	58.5	60.7	59.6	18.4
WB4699	25.0	84.7	54.9	101.0	101.9	101.5	54.7	58.5	56.6	19.4
AVERAGE	24.8	83.1	53.9	100.0	100.0	100.0	55.2	59.6	57.4	19.8
CV (%)	4.8	4.9	--	4.8	4.9	--	0.7	0.4	--	1.1
LSD (0.05)	2.7	5.3	--	10.4	4.6	--	2.6	0.5	--	2.2

[1]BL=Beloit, KS. farmer's field, Mitchell County. Heavy weed pressure affected stands and final yields.

[2]BE=Belleville, KS, North Central Experiment Field, Republic County.

*Yields must differ by more than the LSD value to be considered statistically different.

2021-2022 Season	Beloit	Belleville
Date Planted	11/9/2021	10/7/2021
Previous Crop	Soybean	Soybean
Primary Tillage	No-till	No-till
Irrigated	None	None
Date Harvested	7/22/2022	7/5/2022
Seasonal precipitation (inches)	11.2	13.6
Normal precipitation (inches)	19.0	19.0

Table 3 continued. NORTH CENTRAL multi-year averages (2020-2022)

Brand / Name	-BL- 2 yr	-BL- 3 yr	-BE- 2 yr	-BE- 3 yr
	(bushels/acre)			
AGRIMAXX				
CARTWRIGHT	42.9	46.2	79.4	66.3
AGRIPRO				
AP BIGFOOT	48.3	--	78.0	--
AP EVERROCK	45.8	45.3	84.6	69.5
AP ROADRUNNER	48.1	--	83.4	--
SY WOLVERINE	54.3	48.9	82.3	66.9
AGSECO				
AG ICON	53.2	51.6	82.9	69.7
AG RADICAL	51.8	50.4	81.4	70.0
KWA				
KS AHEARN	50.4	--	90.4	--
KS HATCHETT	47.8	--	77.5	--
ZENDA	41.1	43.5	74.5	62.0
LIMAGRAIN				
LCS CHROME	39.9	44.1	81.1	70.6
LCS HELIX AX	47.5	--	91.2	--
LCS PHOTON AX	43.3	--	74.1	--
LCS VALIANT	47.1	48.1	84.6	71.0
MERIDIAN				
MS MAVERICK	50.5	--	89.3	--
OGI				
SHOWDOWN	--	34.6	--	63.6
POLANSKY				
HIGH COUNTRY	47.3	--	79.2	--
PARADISE	43.2	41.5	81.2	63.4
ROCK STAR	45.2	46.0	89.1	74.1
WESTBRED				
WB4269	51.6	52.2	76.9	65.2
WB4401	54.2	51.9	98.1	83.2
WB4595	--	37.4	--	68.8
WB4699	50.0	50.4	86.5	72.5
AVERAGE	47.6	58.6	84.6	70.5

Table 4. 2022 SOUTHEAST Kansas dryland winter wheat performance test

Brand / Name	OT[1]	PA[2]	Av.	OT	PA	Av.	OT	PA	Av.	OT	OT
	yield (bu/a)			% of test average			test weight (lb/bu)			heading (date)	ht (in)
AGRIMAXX											
CARTWRIGHT	61.5	65.5	63.5	90.5	87.8	89.2	57.0	55.9	56.4	5/19/2022	29.0
AGRIPRO											
AP PROLIFIC	77.1	82.2	79.6	113.4	110.1	111.7	59.3	57.6	58.4	5/20/2022	30.0
AGSECO											
AG RADICAL	66.5	75.2	70.8	97.8	100.7	99.3	58.5	56.0	57.3	5/18/2022	31.0
KWA											
EVEREST	59.4	64.0	61.7	87.4	85.8	86.6	59.5	57.8	58.7	5/14/2022	26.5
KS PROVIDENCE	70.0	66.5	68.2	103.0	89.1	96.0	58.2	56.5	57.4	5/21/2022	28.0
ZENDA	66.0	75.3	70.7	97.2	100.9	99.1	59.6	58.2	58.9	5/18/2022	28.5
POLANSKY											
PARADISE	58.6	73.7	66.2	86.3	98.8	92.5	59.0	56.2	57.6	5/17/2022	26.5
ROCK STAR	66.1	78.2	72.2	97.2	104.9	101.0	58.8	55.6	57.2	5/20/2022	24.0
WESTBRED											
WB4269	64.6	67.1	65.8	95.0	89.9	92.5	55.7	55.7	55.7	5/19/2022	28.5
WB4401	61.3	73.0	67.2	90.3	97.8	94.0	56.2	53.8	55.0	5/16/2022	27.0
WB4422	81.2	85.0	83.1	119.5	114.0	116.7	60.5	58.0	59.2	5/17/2022	29.5
WB4523	81.2	72.3	76.7	119.4	96.9	108.1	57.1	54.1	55.6	5/20/2022	27.0
WB4699	70.0	92.1	81.1	103.0	123.4	113.2	58.5	56.0	57.3	5/22/2022	26.5
AVERAGE	68.0	74.6	71.3	100.0	100.0	100.0	58.3	56.3	57.3	5/18/2022	27.8
CV (%)	5.0	5.8	--	5.0	5.8	--	0.6	0.7	--	--	--
LSD (0.05)	5.8	7.0	--	8.5	9.7	--	1.8	2.1	--	--	--

[1] OT=Ottawa, Kansas, East Central Experiment Field, Franklin County.
[2] PA=Parsons, Kansas, Southeast Research-Extension Center, Labette County.
* Yields must differ by more than the LSD value to be considered statistically different.

2021-2022 Season	Ottawa	Parsons
Date Planted	10/26/2021	10/27/2021
Previous Crop	Soybean	Soybean
Primary Tillage	Min-till	Conventional
Irrigated	None	None
Date Harvested	6/29/2022	6/29/2022
Seasonal precipitation (inches)	18.9	26.1
Normal precipitation (inches)	24.7	28.5

SOUTHEAST Kansas multi-year averages (2020-2022)

	-OT-		-PA-	
Brand / Name	2 yr	3 yr	2 yr	3 yr
	(bushels/acre)			
AGRIMAXX				
CARTWRIGHT	41.6	46.9	68.1	73.0
AGSECO				
AG RADICAL	42.6	45.8	51.6	59.7
KWA				
EVEREST	42.3	43.7	56.9	64.2
ZENDA	45.7	47.6	70.7	75.8
POLANSKY				
PARADISE	38.9	--	76.5	--
ROCK STAR	48.5	51.0	72.9	75.0
WESTBRED				
WB4269	47.9	52.3	64.4	71.9
WB4401	41.8	47.6	82.5	91.3
WB4699	49.5	53.0	65.8	75.4
AVERAGE	45.8	47.3	65.1	70.5

Table 5. 2022 SOUTHEAST Kansas SOFT winter wheat performance test

Brand / Name	PA[1]	PA	PA
	yield (bu/a)	% test average	test weight (/lb/bu)
AGRIMAXX			
492	81.0	95.1	57.5
503	80.6	94.6	55.7
505	88.9	104.4	57.7
513	86.9	102.0	56.7
514	87.5	102.8	55.3
516	83.8	98.4	55.9
EXP 2105	87.1	102.2	55.1
BEACHNER GRAIN			
BG206	88.7	104.1	55.8
BG208	86.6	101.7	56.2
PIONEER			
P25R50	81.8	96.0	54.6
P25R74	92.6	108.7	54.8
P25R76	79.1	92.9	55.8
WESTBRED			
WB2606	82.8	97.2	56.3
AVERAGE	85.2	100.0	56.0
CV (%)	4.1	4.1	0.3
LSD (0.05)	7.1	7.5	1.0

[1]PA= Parsons, Kansas, Southeast Research-Extension Center, Labette County

*Yields must differ by more than the LSD value to be considered statistically different.

2021-2022 Season	Parsons
Date Planted	10/27/2021
Previous Crop	Soybean
Primary Tillage	Conventional
Irrigated	None
Date Harvested	6/29/2022
Seasonal precipitation (inches)	26.1
Normal precipitation (inches)	28.5

SOFT multi-year averages (2020-2022)

	-PA-	
Brand / Name	2 yr	3 yr
	(bushels/acre)	
AGRIMAXX		
492	90.5	--
503	91.5	99.0
505	94.6	100.5
513	93.1	--
514	90.4	--

Table 5 continued. SOFT multi-year averages (2020-2022)

Brand / Name	2 yr	3 yr
	(bushels/acre)	
BEACHNER GRAIN		
BG206	91.5	--
BG208	89.3	--
PIONEER		
P25R50	--	89.7
P25R74	--	101.5
AVERAGE	87.8	92.6

Table 6. 2022 CENTRAL Kansas dryland winter wheat performance test

Brand / Name	EL[1]	HL[2]	AS[3]	Av.	EL	HL	AS	Av.	EL	HL	AS	Av.
	yield (bu/a)				% of test average				test weight (lb/bu)			
AGRIMAXX												
CARTWRIGHT	76.1	75.7	40.5	64.1	111	89	82	94	56.3	56.4	56.2	56.3
AGRIPRO												
AP BIGFOOT	61.6	84.8	50.4	65.6	90	99	102	97	57.7	58.4	56.7	57.6
AP EVERROCK	61.8	89.2	50.4	67.1	90	104	102	99	57.2	58.0	56.3	57.1
AP PROLIFIC	71.2	93.0	45.4	69.9	104	109	92	102	57.9	58.8	58.1	58.3
AP18 AX	71.7	87.3	43.4	67.5	105	102	88	98	56.9	58.6	55.3	56.9
BOB DOLE	67.5	88.9	47.2	67.9	99	104	96	100	56.8	56.9	54.0	55.9
SY WOLVERINE	83.1	101.0	51.0	78.4	122	118	103	114	57.8	58.3	57.5	57.8
AGSECO												
AG ICON	62.2	76.9	48.9	62.7	91	90	99	93	56.2	57.0	55.6	56.3
AG RADICAL	63.2	91.1	53.4	69.2	92	107	108	102	56.9	56.9	55.0	56.2
CROPLAN												
CP7017AX	66.4	91.8	45.7	68.0	97	107	93	99	58.1	58.4	56.9	57.8
CP7266AX	59.9	71.4	42.9	58.1	88	84	87	86	56.6	56.5	55.1	56.0
CP7909	63.6	87.0	52.5	67.7	93	102	107	101	57.0	58.7	57.1	57.6
KWA												
KS AHEARN	72.6	79.1	45.4	65.7	106	93	92	97	55.9	56.6	55.5	56.0
KS HATCHETT	74.4	82.2	48.0	68.2	109	96	97	101	57.4	57.7	55.4	56.8
KS PROVIDENCE	72.7	89.0	51.9	71.2	106	104	105	105	56.8	57.5	57.5	57.2
KS WESTERN STAR	61.7	77.4	52.8	64.0	90	91	107	96	58.6	57.8	57.5	57.9
ZENDA	59.8	85.2	44.6	63.2	87	100	90	93	57.9	59.6	55.8	57.8
LIMAGRAIN												
LCS ATOMIC AX	58.1	87.1	50.3	65.2	85	102	102	96	58.5	59.0	58.0	58.5
LCS CHROME	73.6	84.9	50.2	69.5	108	99	102	103	57.5	57.7	56.9	57.3
LCS HELIX AX	73.8	87.0	51.2	70.7	108	102	104	105	58.7	58.2	57.1	58.0
LCS JULEP	78.1	88.1	49.1	71.8	114	103	100	106	57.5	58.9	56.3	57.6
LCS PHOTON AX	58.8	71.7	46.1	58.9	86	84	93	88	59.5	60.4	55.6	58.5
LCS REVERE	67.7	84.6	51.3	67.9	99	99	104	101	57.1	57.3	56.2	56.9
LCS RUNNER	67.0	84.4	47.9	66.4	98	99	97	98	57.0	58.7	56.9	57.5
LCS STEEL AX	84.0	89.7	49.9	74.5	123	105	101	110	56.0	56.3	53.9	55.4
LCS VALIANT	57.2	89.6	48.6	65.1	84	105	99	96	57.0	57.9	56.4	57.1
MERIDIAN												
MS MAVERICK	70.9	86.8	55.8	71.1	104	102	113	106	58.0	57.9	54.7	56.9
OGI												
DOUBLESTOP CL PLUS	66.3	80.4	52.9	66.5	97	94	107	100	58.6	59.7	58.6	59.0
SHOWDOWN	73.1	87.9	50.2	70.4	107	103	102	104	56.9	58.4	56.8	57.3
SMITH'S GOLD	58.9	71.8	48.0	59.6	86	84	97	89	57.9	60.3	56.9	58.4
STRAD CL PLUS	82.3	82.4	44.3	69.7	120	96	90	102	57.4	59.2	57.2	57.9
PLAINSGOLD												
CANVAS	59.3	85.9	53.2	66.1	87	101	108	98	56.7	57.6	57.7	57.3
CRESCENT AX	61.7	83.0	47.3	64.0	90	97	96	94	58.4	59.2	56.9	58.1
GUARDIAN	65.6	86.1	46.8	66.2	96	101	95	97	58.5	56.5	55.3	56.8
KIVARI AX	75.9	75.9	55.1	69.0	111	89	112	104	56.8	55.9	55.8	56.1
WHISTLER	66.6	87.4	56.9	70.3	98	102	115	105	56.0	55.8	54.3	55.4
POLANSKY												
HIGH COUNTRY	62.7	81.9	51.5	65.4	92	96	105	97	57.6	59.3	55.7	57.5
PARADISE	71.8	83.9	49.0	68.2	105	98	99	101	58.0	57.9	56.3	57.4
ROCK STAR	71.1	88.2	50.2	69.8	104	103	102	103	56.2	56.3	56.0	56.1
WESTBRED												
WB4269	65.5	81.6	49.8	65.6	96	96	101	97	56.4	57.6	55.8	56.6
WB4401	67.1	95.6	44.5	69.1	98	112	90	100	57.7	59.2	56.9	58.0
WB4422	83.4	101.6	55.0	80.0	122	119	112	118	59.7	59.6	57.6	59.0
WB4523	70.0	91.9	49.3	70.4	103	108	100	103	56.1	57.9	56.3	56.8
WB4699	66.8	88.0	50.5	68.5	98	103	102	101	56.9	56.4	54.6	56.0
AVERAGE	68.3	85.4	49.3	67.7	100	100	100	100	57.4	58.0	56.3	57.2
CV(%)	6.2	5.3	5.8	--	6	5	6	--	0.6	0.9	1.2	--
LSD (0.05)*	5.8	4.0	5.6	--	8	5	11	--	0.5	3.0	0.6	--

[1]EL=Ellsworth, KS, farmer's field, Ellsworth County. Fungicide applied.
[2]HL=Hillsboro, KS, farmer's field, Marion County. Fungicide applied.
[3]AS=Assaria, KS, farmer's field, Saline County. Fungicide applied.
*Yields must differ by more than the LSD value to be considered statistically different.

2021-2022 Season	Ellsworth	Hillsboro	Assaria
Date Planted	10/19/2021	10/18/2021	10/11/2021
Previous Crop	Wheat	Fallow	Sorghum
Primary Tillage	Min-till	Min-till	Conventional
Irrigated	None	None	None
Date Harvested	6/24/2022	6/28/2022	6/28/2022
Seasonal precipitation (inches)	13.5	19.4	15.3
Normal precipitation (inches)	17.7	23.1	20.0

Table 6 continued. 2022 CENTRAL Kansas multi-year averages (2020-2022)

	-EL-		-HL-		-AS-	
Brand / Name	**2 yr**	**3yr**	**2 yr**	**3 yr**	**2 yr**	**3 yr**
AGRIMAXX						
CARTWRIGHT	79.1	74.1	69.8	--	60.5	--
AGRIPRO						
AP BIGFOOT	76.5	--	63	--	58.4	--
AP EVERROCK	78.6	75.8	77.4	--	61.7	--
BOB DOLE	73.5	67.3	80.7	--	69.1	--
SY WOLVERINE	90.3	86.6	81.6	--	59.4	--
AGSECO						
AG ICON	64.6	65	66.6	--	60.1	--
AG RADICAL	78	75.5	74.2	--	64.4	--
CROPLAN						
CP7017AX	81.5	77.4	73	--	77.8	--
CP7909	80.8	73.4	72.5	--	62.5	--
KWA						
KS AHEARN	79.1	--	71.9	--	56.2	--
KS HATCHETT	80.2	--	68.7	--	57.1	--
KS WESTERN STAR	71.5	67.8	72.7	--	64	--
ZENDA	72	70.4	77.8	--	64.4	--
LIMAGRAIN						
LCS ATOMIC AX	81.1	--	83.2	--	62.3	--
LCS CHROME	81.1	72.5	76.2	--	68.2	--
LCS HELIX AX	84.7	--	79.8	--	62.2	--
LCS PHOTON AX	69.2	--	68.4	--	59.4	--
LCS REVERE	84.3	--	77.4	--	64.1	--
LCS VALIANT	69.2	67.2	80	--	63.6	--
MERIDIAN						
MS MAVERICK	75.1	--	77.3	--	61.5	--
OGI						
SHOWDOWN	85.4	79.1	79.9	--	67.2	--
SMITH'S GOLD	73.6	69.3	68.4	--	63.5	--
PLAINSGOLD						
CANVAS	67.4	70.1	74.9	--	58.9	--
CRESCENT AX	76.7	73.3	69.9	--	61.9	--
WHISTLER	84.8	85.3	72.6	--	62.6	--
POLANSKY						
HIGH COUNTRY	80.7	--	74.6	--	55.9	--
PARADISE	82.8	75.5	77.6	--	69.8	--
ROCK STAR	79	78.4	84.5	--	69.1	--
WESTBRED						
WB4269	77.3	75.7	75.5	--	62.5	--
WB4401	80.8	--	79.5	--	70.3	--
WB4699	82.1	79.3	79.4	--	65.2	--
AVERAGE	78.6	74.9	74.8	--	62.3	--

Table 7. 2022 SOUTH CENTRAL Kansas dryland winter wheat performance test

Brand / Name	NW[1]	HU[2]	SJ[3]	Av.	NW	HU	SJ	Av.	NW	HU	SJ	Av.
	yield (bu/a)				% of test average				test weight (lb/bu)			
AGRIMAXX												
CARTWRIGHT	55.0	66.3	34.8	52.0	98.1	99.2	101.3	99.6	56.8	58.6	58.8	58.1
AGRIPRO												
AP BIGFOOT	58.3	73.3	32.0	54.6	104.0	109.8	93.2	102.3	58.6	59.8	58.3	58.9
AP EVERROCK	51.3	67.3	39.3	52.6	91.5	100.7	114.4	102.2	58.8	60.7	59.9	59.8
AP PROLIFIC	53.9	65.0	38.4	52.4	96.1	97.3	111.8	101.7	58.2	60.9	59.4	59.5
AP ROADRUNNER	58.3	67.9	30.0	52.1	104.1	101.7	87.4	97.7	57.2	59.4	58.5	58.4
AP18 AX	59.9	63.0	31.6	51.5	106.8	94.3	91.9	97.7	58.4	59.9	58.4	58.9
BOB DOLE	53.9	68.1	35.6	52.5	96.1	102.0	103.5	100.5	57.7	59.6	58.5	58.6
SY WOLVERINE	58.0	67.8	42.1	56.0	103.5	101.4	122.6	109.2	59.1	61.7	59.1	60.0
AGSECO												
AG ICON	55.5	69.0	35.2	53.2	99.0	103.3	102.5	101.6	57.3	60.6	56.8	58.2
AG RADICAL	55.6	69.7	31.4	52.3	99.2	104.4	91.4	98.3	58.2	59.6	58.7	58.8
CROPLAN												
CP7017AX	51.6	73.6	42.4	55.9	92.0	110.2	123.4	108.5	59.3	61.2	58.0	59.5
CP7266AX	46.5	61.4	29.5	45.8	82.9	91.9	85.8	86.9	56.8	59.2	58.5	58.2
CP7909	62.7	76.6	36.0	58.4	111.8	114.7	104.7	110.4	58.9	60.6	59.1	59.6
KWA												
KS AHEARN	58.1	67.4	36.9	54.1	103.7	100.9	107.4	104.0	57.7	60.0	58.4	58.7
KS HATCHETT	60.1	61.1	32.1	51.1	107.2	91.4	93.4	97.3	58.0	60.3	58.3	58.9
KS PROVIDENCE	57.8	76.5	37.4	57.2	103.2	114.4	108.8	108.8	58.8	60.8	58.7	59.4
KS SILVERADO	57.6	67.2	39.2	54.7	102.7	100.6	114.2	105.9	59.1	61.8	60.2	60.4
KS WESTERN STAR	50.6	71.7	32.3	51.6	90.3	107.3	94.1	97.2	58.9	61.5	60.4	60.3
ZENDA	48.4	56.1	40.8	48.4	86.4	83.9	118.8	96.4	59.1	60.9	60.7	60.2
LIMAGRAIN												
LCS ATOMIC AX	59.5	65.8	32.8	52.7	106.2	98.5	95.5	100.1	59.1	60.0	58.6	59.2
LCS CHROME	61.5	67.7	35.4	54.9	109.8	101.3	103.0	104.7	58.6	60.7	60.2	59.8
LCS HELIX AX	54.2	63.9	36.4	51.5	96.7	95.7	106.1	99.5	59.5	61.1	59.3	60.0
LCS JULEP	53.6	62.7	35.7	50.7	95.6	93.9	104.0	97.9	59.2	62.2	60.1	60.5
LCS PHOTON AX	48.6	57.5	31.2	45.8	86.8	86.1	90.9	87.9	59.5	62.5	61.0	61.0
LCS REVERE	51.9	64.8	28.8	48.5	92.6	97.0	83.7	91.1	59.3	61.0	57.5	59.2
LCS RUNNER	56.7	76.5	34.0	55.7	101.2	114.4	98.9	104.8	59.2	61.3	59.7	60.1
LCS STEEL AX	54.2	73.0	25.9	51.1	96.7	109.3	75.5	93.8	57.1	59.8	57.6	58.1
LCS VALIANT	55.6	69.0	39.2	54.6	99.2	103.2	114.1	105.5	58.4	60.8	59.9	59.7
MERIDIAN												
MS MAVERICK	60.4	66.4	29.8	52.2	107.7	99.4	86.7	98.0	58.8	60.2	59.6	59.5
OGI												
BAKER'S ANN	54.4	62.6	36.1	51.0	97.0	93.7	105.1	98.6	60.4	60.7	60.1	60.4
DOUBLESTOP CL PLUS	54.0	55.9	35.0	48.3	96.4	83.6	101.9	94.0	59.2	61.1	60.8	60.3
GREEN HAMMER	50.6	57.8	33.5	47.3	90.3	86.5	97.4	91.4	59.1	60.7	60.0	59.9
OK CORRAL	58.6	67.8	34.0	53.5	104.5	101.5	99.0	101.7	57.3	58.9	57.2	57.8
SHOWDOWN	60.4	67.3	38.5	55.4	107.8	100.8	112.0	106.9	58.2	60.9	59.2	59.4
SMITH'S GOLD	54.1	60.0	30.0	48.0	96.4	89.9	87.4	91.3	60.0	60.2	58.9	59.7
STRAD CL PLUS	54.2	57.4	31.7	47.8	96.7	85.9	92.2	91.6	58.5	61.1	59.6	59.7
PLAINSGOLD												
CANVAS	57.0	73.4	33.4	54.6	101.7	109.9	97.4	103.0	59.5	61.2	59.7	60.1
CRESCENT AX	67.5	68.5	33.3	56.4	120.4	102.5	96.9	106.6	59.1	60.7	59.8	59.9
KIVARI AX	63.0	74.9	40.3	59.4	112.3	112.2	117.3	113.9	57.9	60.1	59.5	59.1
WHISTLER	61.2	78.2	31.6	57.0	109.3	117.0	92.0	106.1	56.5	59.1	58.4	58.0
POLANSKY												
PARADISE	52.5	60.8	29.8	47.7	93.7	91.0	86.6	90.4	59.1	60.2	59.8	59.7
ROCK STAR	54.4	74.7	33.1	54.1	97.1	111.9	96.5	101.8	57.9	59.5	58.3	58.6
WESTBRED												
WB4269	54.0	69.1	34.1	52.4	96.3	103.4	99.3	99.7	57.5	59.8	59.2	58.8
WB4401	63.5	64.1	33.7	53.8	113.3	95.9	98.2	102.4	59.0	61.3	59.0	59.7
WB4422	54.2	72.7	31.8	52.9	96.7	108.9	92.4	99.3	57.5	61.7	58.4	59.2
WB4523	61.0	65.0	28.4	51.4	108.8	97.2	82.6	96.2	57.2	60.5	58.2	58.6
WB4699	54.0	61.0	38.7	51.2	96.3	91.3	112.7	100.1	56.7	59.0	57.7	57.8
WB4792	52.6	68.2	35.7	52.2	93.9	102.0	104.0	100.0	60.2	62.0	60.7	60.9
AVERAGE	56.1	66.8	34.4	52.4	100.0	100.0	100.0	100.0	58.5	60.5	59.1	59.4
CV (%)	4.5	6.4	7.2	--	4.5	6.4	7.2	--	0.4	0.7	0.9	--
LSD (0.05)	6.6	5.2	3.5	--	11.0	7.2	8.2	--	0.6	1.5	3.2	--

[1]NW=Newton, KS. farmer's field, Harvey County.

[2]HU=Hutchinson, KS, South Central Experiment Field, Reno County.

[3]SJ=St. John, KS, farmer's field, Stafford County.

*Yields must differ by more than the LSD value to be considered statistically different.

Table 7 continued. 2022 SOUTH CENTRAL Kansas dryland winter wheat performance test

2021-2022 Season	Newton	Hutchinson	St. John
Date Planted	10/21/2021	10/20/2021	10/29/2021
Previous Crop	Wheat	Wheat	Fallow
Primary Tillage	Conventional	Conventional	Conventional
Irrigated	None	None	None
Date Harvested	6/25/2022	6/24/2022	6/29/2022
Seasonal precipitation (inches)	13.5	13.1	10.0
Normal precipitation (inches)	20.5	18.2	17.3

SOUTH CENTRAL Kansas multi-year averages (2020-2022)

	-NW-		-HU-		-SJ-	
Brand / Name	**2 yr**	**3 yr**	**2 yr**	**3 yr**	**2 yr**	**3 yr**
			(bushels/acre)			
AGRIMAXX						
CARTWRIGHT	55.8	--	69.4	73.3	52.5	--
AGRIPRO						
AP BIGFOOT	63.5	--	77.9	--	53.1	--
AP EVERROCK	57.2	--	71.6	74.1	55.8	--
AP18 AX	65.4	--	74.6	78.1	55.6	--
BOB DOLE	59.1	--	77.2	78.7	57.2	--
SY WOLVERINE	61.5	--	76.5	76.6	56.3	--
AGSECO						
AG ICON	57.5	--	69.6	75.1	48.9	--
AG RADICAL	62.2	--	76.6	78.4	55.3	--
CROPLAN						
CP7017AX	53.3	--	77.7	79.4	57.5	--
CP7909	64.8	--	80.5	80.1	58.3	--
KWA						
KS AHEARN	62.7	--	80.5	--	54.5	--
KS HATCHETT	62.6	--	73.4	--	53.9	--
KS SILVERADO	55.2	--	67.0	72.1	53.4	--
KS WESTERN STAR	55.0	--	77.1	79.3	55.1	--
ZENDA	--	--	66.0	--	--	--
LIMAGRAIN						
LCS ATOMIC AX	62.9	--	78.0	--	49.6	--
LCS CHROME	61.7	--	72.9	75.0	50.8	--
LCS HELIX AX	57.9	--	71.9	--	55.3	--
LCS JULEP	55.2	--	70.6	--	55.7	--
LCS PHOTON AX	51.6	--	68.7	--	49.9	--
LCS REVERE	54.2	--	68.4	--	46.0	--
LCS VALIANT	57.4	--	76.4	77.8	57.5	--
MERIDIAN						
MS MAVERICK	58.7	--	69.9	--	47.0	--
OGI						
DOUBLESTOP CL PLUS	56.8	--	67.5	70.0	48.8	--
GREEN HAMMER	--	--	68.5	--	--	--
OK CORRAL	61.4	--	74.7	--	48.4	--
SHOWDOWN	63.8	--	74.1	78.1	60.9	--
SMITH'S GOLD	55.5	--	68.2	72.7	49.0	--
STRAD CL PLUS	59.4	--	67.4	73.4	46.9	--
PLAINSGOLD						
CANVAS	58.1	--	76.4	78.9	51.5	--
CRESCENT AX	63.0	--	77.6	77.5	55.8	--
WHISTLER	63.8	--	80.0	79.3	54.8	--
POLANSKY						
PARADISE	55.8	--	71.8	72.7	48.0	--
ROCK STAR	58.6	--	78.7	80.3	53.3	--
WESTBRED						
WB4269	57.8	--	73.7	79.5	50.9	--
WB4401	65.4	--	78.2	--	57.1	--
WB4699	56.3	--	69.3	--	57.6	--
WB4792	--	--	--	76.6	--	--
AVERAGE	58.7	--	73.3	75.5	52.9	--

Table 8. 2022 SOUTH CENTRAL non-treated dryland winter wheat performance test

Brand / Name	WL[1]	WL	2 yr	WL
	yield (bu/a)	% of test average	multiyear av. (bu/a)	test weight (lb/bu)
AGRIMAXX				
CARTWRIGHT	35.2	71.5	54.5	55.4
AGRIPRO				
AP PROLIFIC	54.5	110.7	--	57.8
AP18 AX	54.9	111.4	63.4	59.1
BOB DOLE	53.2	108.1	61.8	59.3
AGSECO				
AG ICON	50.7	103.0	52.9	58.1
AG RADICAL	58.3	118.4	52.9	60.8
KWA				
KS AHEARN	41.4	84.1	47.0	57.1
KS HATCHETT	43.2	87.7	51.5	56.2
KS PROVIDENCE	54.3	110.3	--	58.9
KS SILVERADO	42.0	85.2	33.3	61.0
ZENDA	47.3	96.0	51.3	58.6
LIMAGRAIN				
LCS ATOMIC AX	48.9	99.3	61.7	59.6
LCS CHROME	49.9	101.4	54.7	60.5
LCS HELIX AX	50.2	101.9	58.5	61.5
LCS JULEP	44.2	89.8	45.5	61.0
LCS PHOTON AX	48.8	99.0	55.3	61.4
LCS REVERE	47.8	97.1	47.9	58.5
LCS RUNNER	49.2	99.8	--	59.0
LCS STEEL AX	55.6	112.9	--	61.0
LCS VALIANT	50.5	102.5	57.2	60.2
MERIDIAN				
MS MAVERICK	52.7	107.0	55.6	60.8
OGI				
BAKER'S ANN	41.7	84.6	51.5	57.1
BIG COUNTRY	39.3	79.8	55.9	55.9
DOUBLESTOP CL PLUS	51.3	104.2	63.2	61.2
GREEN HAMMER	52.2	106.1	63.0	58.4
OK CORRAL	38.7	78.6	48.7	57.4
SHOWDOWN	58.7	119.2	58.3	57.2
SKYDANCE	34.9	70.8	52.0	55.5
SMITH'S GOLD	46.5	94.4	50.3	57.2
STRAD CL PLUS	49.1	99.7	59.7	60.1
UNCHARTED	46.2	93.7	54.4	59.1
PLAINSGOLD				
CRESCENT AX	55.7	113.1	58.9	60.4
GUARDIAN	53.8	109.3	--	57.9
KIVARI AX	54.7	111.2	--	58.1
WHISTLER	57.3	116.3	47.7	59.0
POLANSKY				
PARADISE	55.4	112.5	64.2	59.6
ROCK STAR	49.6	100.8	58.6	58.3
WESTBRED				
WB4401	54.4	110.4	64.2	58.7
WB4523	47.6	96.7	--	57.8
WB4699	49.8	101.2	51.5	57.0
AVERAGE	49.2	100.0	54.2	58.8
CV (%)	4.4	4.4	--	3.0
LSD (0.05)	5.4	12.1	--	2.1

[1]WL=Wellington, KS, farmer's field, Sumner County. No fungicide applied.

*Yields must differ by more than the LSD value to be considered statistically different.

2021-2022 Season	Wellington
Date Planted	10/25/2021
Previous Crop	Wheat
Primary Tillage	Min-till
Irrigated	None
Date Harvested	6/22/2022
Seasonal precipitation (inches)	21.1
Normal precipitation (inches)	22.7

Table 9. 2022 NORTHWEST Kansas dryland winter wheat performance test

Brand / Name	RS[1]	CO[2]	TR[3]	DC[4]	Av.	RS	CO	TR	DC	Av.	RS	CO	TR	DC	Av.	DC
	yield (bu/a)					% of test average					test weight (lb/bu)					ht (in)
AGRIMAXX																
CARTWRIGHT	69.7	41.6	--	60.0	57.1	95.9	78.3	--	107.4	93.9	51.9	54.6	--	55.3	53.9	25.0
AGRIPRO																
AP BIGFOOT	70.5	51.2	--	52.1	57.9	97.0	96.3	--	93.2	95.5	55.1	55.8	--	56.0	55.6	23.8
AP ROADRUNNER	72.2	53.5	--	55.4	60.4	99.5	100.5	--	99.2	99.7	52.4	52.1	--	55.0	53.2	26.0
AP18 AX	80.5	60.1	--	58.5	66.3	110.8	113.0	--	104.6	109.5	54.9	54.0	--	55.7	54.9	25.0
SY WOLVERINE	79.6	53.0	--	57.5	63.4	109.7	99.7	--	102.9	104.1	52.1	52.4	--	55.2	53.2	23.5
AGSECO																
AG GOLDEN	72.8	47.9	--	50.6	57.1	100.2	90.1	--	90.5	93.6	52.8	52.4	--	53.2	52.8	24.8
TAM 114	71.6	47.3	--	35.4	51.4	98.6	88.8	--	63.3	83.6	54.4	56.9	--	55.5	55.6	24.5
KWA																
KS DALLAS	68.6	60.0	--	64.3	64.3	94.5	112.7	--	115.1	107.5	53.9	49.5	--	56.0	53.1	25.5
KS HAMILTON	62.9	58.4	--	53.9	58.4	86.7	109.8	--	96.5	97.7	54.2	53.9	--	55.0	54.3	24.5
KS PROVIDENCE	72.9	47.8	--	67.3	62.7	100.4	89.8	--	120.4	103.6	53.5	53.2	--	55.7	54.1	24.8
KS TERRITORY	76.6	54.8	--	56.5	62.7	105.5	103.0	--	101.2	103.3	55.7	55.3	--	55.6	55.5	25.0
KS WESTERN STAR	65.1	43.8	--	61.3	56.8	89.7	82.3	--	109.7	93.9	54.5	55.4	--	58.1	56.0	27.5
OAKLEY CL	63.5	46.7	--	56.5	55.6	87.4	87.8	--	101.1	92.1	55.0	53.8	--	57.2	55.3	26.3
TATANKA	71.7	56.5	--	55.6	61.3	98.7	106.2	--	99.4	101.5	54.7	52.9	--	56.4	54.6	23.3
LIMAGRAIN																
LCS ATOMIC AX	75.0	54.2	--	59.5	62.9	103.3	101.9	--	106.5	103.9	54.2	54.5	--	57.0	55.3	24.0
LCS CHROME	70.2	45.1	--	51.4	55.5	96.7	84.7	--	91.9	91.1	54.6	54.7	--	55.1	54.8	29.0
LCS HELIX AX	71.2	57.0	--	51.0	59.8	98.1	107.2	--	91.3	98.9	53.6	57.4	--	57.1	56.0	24.5
LCS JULEP	81.3	52.3	--	51.7	61.8	112.0	98.3	--	92.5	100.9	54.0	54.9	--	56.7	55.2	26.3
LCS REVERE	67.1	43.5	--	50.0	53.6	92.5	81.7	--	89.5	87.9	53.1	55.0	--	54.9	54.3	24.0
LCS RUNNER	73.6	54.0	--	53.1	60.2	101.4	101.5	--	95.0	99.3	55.2	55.7	--	58.2	56.4	26.3
LCS STEEL AX	74.8	54.7	--	54.2	61.2	103.1	102.8	--	97.0	100.9	54.2	54.2	--	54.2	54.2	27.5
LCS VALIANT	69.3	34.4	--	45.7	49.8	95.5	64.7	--	81.8	80.7	55.0	53.8	--	54.7	54.5	24.3
T158	75.0	51.3	--	42.1	56.2	103.3	96.5	--	75.4	91.7	54.2	54.1	--	55.6	54.6	24.5
MERIDIAN																
MS MAVERICK	75.2	58.4	--	60.0	64.5	103.5	109.8	--	107.3	106.9	55.3	53.2	--	54.5	54.4	26.8
PLAINSGOLD																
CANVAS	73.4	68.5	--	62.9	68.3	101.2	128.7	--	112.5	114.1	54.7	52.4	--	56.9	54.7	27.3
CRESCENT AX	70.5	63.0	--	59.0	64.2	97.1	118.4	--	105.6	107.0	55.4	55.7	--	56.4	55.8	25.5
GUARDIAN	79.2	60.6	--	58.0	65.9	109.1	113.9	--	103.7	108.9	56.0	56.7	--	56.4	56.4	27.8
WHISTLER	78.4	67.4	--	66.1	70.6	108.0	126.7	--	118.3	117.7	53.8	53.9	--	55.1	54.2	27.8
POLANSKY																
HIGH COUNTRY	65.9	60.2	--	60.4	62.2	90.8	113.1	--	108.1	104.0	54.1	54.4	--	56.2	54.9	23.8
ROCK STAR	72.8	54.6	--	57.6	61.7	100.3	102.7	--	103.1	102.0	54.6	54.8	--	54.3	54.6	24.0
WESTBRED																
WB4401	81.8	32.4	--	60.9	58.4	112.7	60.9	--	108.9	94.2	52.5	50.0	--	55.6	52.7	25.3
WB4422	85.3	62.7	--	60.9	69.6	117.6	117.9	--	108.9	114.8	54.4	53.4	--	57.3	55.1	27.8
WB4595	69.6	56.3	--	51.6	59.2	95.9	105.9	--	92.3	98.0	56.8	52.8	--	58.1	55.9	25.0
WB4792	60.4	55.5	--	59.1	58.3	83.2	104.4	--	105.7	97.8	54.6	50.8	--	57.7	54.3	27.8
AVERAGE	72.6	53.2	--	55.9	60.6	100.0	100.0	--	100.0	100.0	54.3	54.0	--	55.9	54.7	25.5
CV (%)	6.6	6.7	--	8.0	--	6.6	6.7	--	8.0	--	2.1	1.4	--	0.9	--	1.1
LSD (0.05)	6.1	6.9	--	6.5	--	7.9	12.8	--	11.6	--	2.4	0.8	--	2.5	--	3.0

[1]RS=Russell, KS, farmer's field, Russell County.

[2]CO=Colby, KS, Northwest Agricultural Research Center, Thomas County.

[3]TR=Tribune, KS, Southwest Agricultural Research Center, Greeley County.

[4]DC=Decatur, KS, farmer's field, Decatur County.

*Yields must differ by more than the LSD value to be considered statistically different.

2021-2022 Season	Russell	Colby	Tribune	Decatur
Date Planted	10/22/2021	10/5/2021		10/8/2021
Previous Crop	Wheat	Summer Fallow/Corn	Abandoned due to hail.	Chem Fallow/Corn
Primary Tillage	No-till	Min-till		No-till
Irrigated	None	None		None
Date Harvested	7/7/2022	7/8/2022		7/24/2022
Seasonal precipitation (inches)	8.0	6.5	5.8	7.3
Normal precipitation (inches)	14.4	12.8	11.1	15.8

Table 9 continued. NORTHWEST Kansas multi-year averages (2020-2022)

	-RS-		-CO-		-TR-	-DC-	
Brand / Name	**2 yr**	**3 yr**	**2 yr**	**3 yr**	**3 yr**	**2 yr**	**3 yr**
	(bushels/acre)						
AGRIMAXX							
CARTWRIGHT	78.8	84.1	45.8	50.9	61.8	68.2	65.1
AGRIPRO							
AP BIGFOOT	73.6	--	53.4	--	--	69.5	--
AP ROADRUNNER	82.9	--	56.2	--	--	75.2	--
AP18 AX	89.7	--	56.1	--	--	60.6	--
SY WOLVERINE	73.9	85.4	53.9	56.1	71.7	77.9	70.4
AGSECO							
AG GOLDEN	78.4	88.1	58.2	62.1	68.6	74.9	73.8
TAM 114	74.9	76.6	48.8	49.5	65.5	67.4	63.3
KWA							
KS DALLAS	74.9	81.3	59.6	62.7	73.4	82.8	77.9
KS HAMILTON	72.2	--	59.5	--	--	70	--
KS WESTERN STAR	77	84.7	49.1	52.1	67.5	80.1	73.8
OAKLEY CL	75.8	--	48.6	--	--	72.7	--
TATANKA	85.3	92.3	58	57.6	70.2	73.2	70.2
LIMAGRAIN							
LCS ATOMIC AX	87.4	--	51	--	--	76.3	--
LCS CHROME	--	80	--	49.8	--	--	59
LCS HELIX AX	86.2	--	55.8	--	--	68.3	--
LCS JULEP	72.2	--	57.9	--	--	70.4	--
LCS REVERE	80.1	--	49.2	--	--	72.4	--
LCS VALIANT	81.4	87	44	48.9	61.4	69.6	68.1
T158	85.7	86.8	51.3	52.3	62.3	64.1	63.6
MERIDIAN							
MS MAVERICK	77.5	--	54.3	--	--	74.4	--
PLAINSGOLD							
CANVAS	82.6	92.5	59	60.6	61.3	77.5	75.5
CRESCENT AX	--	85.4	--	55.7	--	--	58.8
GUARDIAN	84	90.4	58.7	59.3	60.3	77.8	75.2
WHISTLER	80.7	91.1	69	62.7	57.5	80.8	78.1
POLANSKY							
HIGH COUNTRY	71.4	--	61	--	--	74.4	--
ROCK STAR	86.3	--	56.8	--	--	73.5	--
WESTBRED							
WB4401	--	89.2	--	--	--	--	59.2
WB4595	84.3	89.2	57.9	57.6	62.5	72.6	71.2
WB4792	76.6	84.5	57.4	57.4	61.5	77.8	74.3
AVERAGE	80.1	86.1	54.6	55.5	62.1	73.8	70.3

Table 10. 2022 SOUTHWEST Kansas dryland winter wheat performance test

Brand / Name	LA[1]	HG[2]	GC[3]	Av.	LA	HG	GC	Av.	LA	HG	GC	Av.
	yield (bu/a)				% of test average				test weight (lb/bu)			
AGRIMAXX												
CARTWRIGHT	44.8	--	77.2	61.0	93.9	--	101.6	97.8	60.6	--	58.9	59.7
AGRIPRO												
AP BIGFOOT	49.1	--	71.5	60.3	103.0	--	94.1	98.5	59.9	--	58.2	59.0
AP ROADRUNNER	43.9	--	69.5	56.7	92.2	--	91.4	91.8	57.8	--	57.5	57.7
AP18 AX	45.0	--	77.0	61.0	94.5	--	101.3	97.9	59.3	--	57.4	58.3
SY WOLVERINE	55.2	--	86.0	70.6	115.8	--	113.2	114.5	61.0	--	60.0	60.5
AGSECO												
AG GOLDEN	51.6	--	83.8	67.7	108.3	--	110.2	109.3	58.6	--	58.7	58.7
TAM 114	34.0	--	64.4	49.2	71.3	--	84.8	78.1	59.7	--	59.9	59.8
KWA												
(W) JOE	47.1	--	70.9	59.0	98.7	--	93.3	96.0	60.2	--	59.1	59.6
KS BIG BOW	51.7	--	79.8	65.8	108.5	--	105.1	106.8	60.9	--	60.2	60.5
KS DALLAS	49.1	--	82.1	65.6	103.0	--	108.1	105.6	61.5	--	60.0	60.7
KS HAMILTON	48.2	--	76.7	62.5	101.2	--	101.0	101.1	60.6	--	59.2	59.9
KS PROVIDENCE	44.8	--	74.2	59.5	93.9	--	97.7	95.8	58.8	--	58.5	58.6
KS TERRITORY	49.5	--	59.6	54.5	103.7	--	78.4	91.1	61.1	--	59.6	60.3
TATANKA	50.0	--	71.0	60.5	104.8	--	93.4	99.1	60.7	--	59.8	60.2
LIMAGRAIN												
LCS ATOMIC AX	52.5	--	73.8	63.1	110.1	--	97.1	103.6	60.6	--	59.4	60.0
LCS CHROME	40.9	--	76.4	58.6	85.7	--	100.5	93.1	58.7	--	58.2	58.4
LCS HELIX AX	49.3	--	84.4	66.8	103.4	--	111.0	107.2	60.7	--	59.8	60.2
LCS JULEP	47.2	--	75.5	61.4	99.1	--	99.3	99.2	61.3	--	59.9	60.6
LCS PHOTON AX	41.9	--	73.5	57.7	87.8	--	96.7	92.3	60.8	--	61.0	60.9
LCS REVERE	44.0	--	72.0	58.0	92.2	--	94.8	93.5	61.1	--	59.6	60.3
LCS RUNNER	53.7	--	85.2	69.4	112.6	--	112.2	112.4	60.6	--	60.1	60.3
LCS STEEL AX	54.0	--	87.8	70.9	113.3	--	115.6	114.4	58.0	--	59.0	58.5
LCS VALIANT	45.7	--	71.0	58.3	95.9	--	93.4	94.6	59.3	--	58.7	59.0
T158	45.1	--	68.2	56.6	94.5	--	89.8	92.2	60.6	--	58.7	59.6
MERIDIAN												
MS MAVERICK	49.3	--	77.5	63.4	103.3	--	102.0	102.7	60.0	--	59.6	59.8
OGI												
BREAKTHROUGH	38.3	--	65.2	51.8	80.3	--	85.8	83.1	60.7	--	59.4	60.1
LONERIDER	38.8	--	65.0	51.9	81.5	--	85.6	83.5	59.2	--	59.2	59.2
OK CORRAL	45.8	--	59.2	52.5	96.1	--	77.9	87.0	58.7	--	57.1	57.9
SHOWDOWN	41.2	--	75.5	58.4	86.4	--	99.4	92.9	60.0	--	58.9	59.5
PLAINSGOLD												
CANVAS	54.6	--	85.0	69.8	114.5	--	111.9	113.2	61.3	--	60.0	60.7
CRESCENT AX	53.8	--	73.1	63.5	112.9	--	96.3	104.6	61.2	--	59.0	60.1
GUARDIAN	47.8	--	89.8	68.8	100.2	--	118.2	109.2	60.6	--	59.0	59.8
WHISTLER	55.3	--	93.8	74.5	115.9	--	123.4	119.7	59.2	--	58.6	58.9
POLANSKY												
HIGH COUNTRY	56.3	--	85.7	71.0	118.0	--	112.8	115.4	61.0	--	58.6	59.8
ROCK STAR	46.2	--	78.7	62.5	97.0	--	103.5	100.3	59.5	--	59.0	59.2
WATLEY												
TAM 112	51.4	--	74.7	63.0	107.8	--	98.3	103.0	61.6	--	60.9	61.2
TAM 115	49.6	--	71.6	60.6	104.0	--	94.2	99.1	61.5	--	61.6	61.6
TAM 204	43.9	--	66.5	55.2	92.1	--	87.5	89.8	57.6	--	56.5	57.0
WESTBRED												
WB4422	48.0	--	87.8	67.9	100.7	--	115.6	108.1	60.6	--	60.1	60.3
WB4595	47.9	--	75.1	61.5	100.3	--	98.8	99.6	62.1	--	61.5	61.8
WB4792	48.6	--	79.2	63.9	101.9	--	104.3	103.1	62.4	--	60.5	61.4
AVERAGE	47.7	--	76.0	61.8	100.0	--	100.0	100.0	60.2	--	59.3	59.7
CV (%)	5.0	--	6.8	--	5.0	--	6.8	--	0.7	--	0.6	--
LSD (0.05)	7.9	--	6.1	--	16.2	--	8.3	--	2.5	--	3.5	--

[1]LA=Larned, KS, farmer's Field, Pawnee County.

[2]HG=Hugoton, KS, farmer's Field, Stevens County.

[3]GC=Garden City, KS, Southwest Agricultural Research Center, Finney County.

[4](W) indicates hard white wheat.

*Yields must differ by more than the LSD value to be considered statistically different.

Table 10 continued. 2022 SOUTHWEST Kansas dryland winter wheat performance test

2021-2022 Season	Larned	Hugoton	Garden City
Date Planted	10/19/2021	9/28/2021	10/6/2021
Previous Crop	Fallow	Abandoned	Summer Fallow
Primary Tillage	Conventional	due to	Min-till
Irrigated	None	drought;	None
Date Harvested	6/29/2022	high	7/6/2022
Seasonal precipitation (inches)	10.1	7.5	5.4
Normal precipitation (inches)	17.9	13.8	12.6

SOUTHWEST multi-year averages (2020-2022)

	-LA-		-GC-	
Brand / Name	**2 yr**	**3 yr**	**2 yr**	**3 yr**
			(bushels/acre)	
AGRIMAXX				
CARTWRIGHT	67.0	74.5	87.7	68.5
AGRIPRO				
AP BIGFOOT	71.1	--	92.6	--
AP ROADRUNNER	70.9	--	85.9	--
SY WOLVERINE	85.2	84.9	93.1	73.4
AGSECO				
AG GOLDEN	76.5	83.0	92.8	73.1
TAM 114	61.3	72.2	81.1	64.8
KWA				
JOE	80.4	85.4	85.5	69.2
KS DALLAS	71.7	81.4	86.1	68.2
KS HAMILTON	77.7	--	88.8	--
TATANKA	71.2	80.5	82.6	67.1
LIMAGRAIN				
LCS ATOMIC AX	84.5	--	88.2	--
LCS HELIX AX	75.4	--	91.1	--
LCS JULEP	71.1	--	83.4	--
LCS Julep	71.3	--	90.8	--
LCS PHOTON AX	64.7	--	86.9	--
LCS VALIANT	70.8	--	85.4	--
T158	73.0	77.3	81.0	64.8
MERIDIAN				
MS MAVERICK	73.0	--	85.5	--
OGI				
BREAKTHROUGH	66.6	72.9	84.7	66.5
LONERIDER	65.6	71.6	79.8	63.6
OK CORRAL	69.5	--	73.8	--
SHOWDOWN	70.7	74.3	87.5	70.0
PLAINSGOLD				
CANVAS	83.0	88.6	94.3	74.5
CRESCENT AX	76.6	--	91.4	--
GUARDIAN	77.4	84.6	90.7	70.4
WHISTLER	87.6	91.5	101.1	79.2
POLANSKY				
HIGH COUNTRY	76.4	--	95.7	--
ROCK STAR	70.0	--	92.7	--
WESTBRED				
WB4595	73.7	82.2	79.7	64.6
WB4792	76.7	84.7	87.1	69.2
AVERAGE	72.3	78.2	87.1	69.2

Table 11. 2022 WESTERN Kansas irrigated winter wheat performance test

Brand / Name	CO[1]	GC[2]	HG[3]	Av.	CO	GC	HG	Av.	CO	GC	HG	Av.
	yield (bu/a)				% of test average				tw (lb/bu)			
AGRIMAXX												
CARTWRIGHT	46.8	--	103.1	75.0	78.1	--	94.7	86.4	49.5	--	57.8	53.6
AGRIPRO												
AP PROLIFIC	58.8	--	110.3	84.5	98.3	--	101.3	99.8	51.4	--	60.3	55.9
AP ROADRUNNER	58.0	--	98.5	78.2	96.8	--	90.5	93.6	49.5	--	57.7	53.6
SY WOLVERINE	68.3	--	115.7	92.0	114.0	--	106.3	110.2	48.6	--	61.2	54.9
AGSECO												
AG GOLDEN	57.3	--	118.6	88.0	95.8	--	109.0	102.4	49.3	--	58.6	53.9
CROPLAN												
CP7017AX	72.2	--	120.3	96.2	120.6	--	110.5	115.6	53.1	--	59.9	56.5
CP7266AX	52.3	--	85.8	69.1	87.4	--	78.9	83.1	52.0	--	59.8	55.9
CP7909	62.1	--	103.3	82.7	103.7	--	94.9	99.3	51.5	--	60.3	55.9
KWA												
KS HAMILTON	57.6	--	104.3	81.0	96.2	--	95.9	96.0	49.7	--	58.1	53.9
KS PROVIDENCE	57.4	--	103.8	80.6	95.9	--	95.4	95.7	50.7	--	58.4	54.6
KS WESTERN STAR	66.1	--	111.0	88.5	110.4	--	101.9	106.2	52.3	--	60.0	56.2
LIMAGRAIN												
LCS ATOMIC AX	76.1	--	96.7	86.4	127.0	--	88.8	107.9	52.7	--	61.3	57.0
LCS CHROME	48.0	--	97.2	72.6	80.1	--	89.3	84.7	50.7	--	60.0	55.4
LCS HELIX AX	68.3	--	129.0	98.6	114.1	--	118.5	116.3	54.7	--	61.9	58.3
LCS JULEP	54.4	--	111.3	82.8	90.8	--	102.3	96.6	52.2	--	60.8	56.5
LCS RUNNER	59.7	--	104.1	81.9	99.8	--	95.6	97.7	53.7	--	59.6	56.6
LCS STEEL AX	54.7	--	107.2	80.9	91.4	--	98.5	94.9	49.8	--	58.0	53.9
LCS VALIANT	55.8	--	104.9	80.4	93.2	--	96.4	94.8	52.3	--	60.1	56.2
T158	59.1	--	102.0	80.5	98.7	--	93.7	96.2	53.0	--	59.6	56.3
OGI												
BREAKTHROUGH	60.9	--	111.1	86.0	101.7	--	102.1	101.9	51.7	--	61.9	56.8
LONERIDER	50.5	--	107.7	79.1	84.3	--	99.0	91.6	54.4	--	59.7	57.0
SHOWDOWN	61.5	--	112.1	86.8	102.7	--	103.0	102.9	51.7	--	59.5	55.6
PLAINSGOLD												
CANVAS	61.4	--	128.4	94.9	102.6	--	118.0	110.3	51.3	--	59.5	55.4
POLANSKY												
HIGH COUNTRY	69.4	--	116.5	93.0	116.0	--	107.0	111.5	50.7	--	61.2	55.9
ROCK STAR	52.6	--	117.7	85.1	87.8	--	108.1	97.9	48.6	--	57.7	53.1
WATLEY												
TAM 112	59.6	--	116.7	88.1	99.5	--	107.2	103.4	53.4	--	61.5	57.4
TAM 115	55.4	--	106.8	81.1	92.6	--	98.2	95.4	51.6	--	59.9	55.8
TAM 204	53.9	--	95.0	74.5	90.0	--	87.3	88.7	45.9	--	55.9	50.9
WESTBRED												
WB4303	58.3	--	107.5	82.9	97.4	--	98.7	98.1	48.7	--	55.3	52.0
WB4422	66.2	--	118.0	92.1	110.5	--	108.5	109.5	52.4	--	60.8	56.6
WB4595	64.8	--	115.8	90.3	108.2	--	106.4	107.3	52.8	--	61.7	57.2
WB4699	68.5	--	102.4	85.4	114.4	--	94.1	104.2	49.6	--	56.9	53.3
AVERAGE	59.9	--	108.8	84.4	100.0	--	100.0	100.0	51.2	--	59.5	55.4
CV (%)	6.9	--	9.3	--	6.9	--	9.3	--	2.2	--	1.3	--
LSD (0.05)	5.6	--	5.3	--	9.8	--	4.3	--	1.2	--	3.3	--

[1]CO=Colby, KS, Northwest Agricultural Research Center, Thomas County.
[2]GC=Garden City, KS, Southwest Agricultural Research Center, Finney County.
[3]HG=Hugoton, KS, farmer's field, Stevens County.
*Yields must differ by more than the LSD value to be considered statistically different.

Table 11 continued. 2022 WESTERN Kansas irrigated winter wheat performance test

2021-2022 Season	Colby	Garden City	Hugoton
Date Planted	10/5/2021	10/6/2021	10/21/2021
Previous Crop	Summer Fallow/Corn	Abandoned due to high variability.	Potatoes
Primary Tillage	Min-till		Min-till
Irrigated	None		Pivot
Date Harvested	7/8/2022		6/25/2022
Seasonal precipitation (inches)	6.5	5.4	7.5
Normal precipitation (inches)	12.8	12.6	13.8

WESTERN irrigated multi-year averages (2020-2022)

	-CO-		-GC-
Brand / Name	**2 yr**	**3 yr**	**3 yr**
	(bushels/acre)		
AGRIMAXX			
CARTWRIGHT	83.9	82.9	91.9
AGRIPRO			
SY WOLVERINE	96.9	95.5	94.9
AGSECO			
AG GOLDEN	92.2	91.5	90.7
CROPLAN			
CP7017AX	96.6	92.9	87.6
CP7909	88.6	88.5	87.2
KWA			
KS HAMILTON	83.5	--	--
KS WESTERN STAR	89.5	87.8	79.8
LIMAGRAIN			
LCS ATOMIC AX	97.4	--	--
LCS HELIX AX	93.2	--	--
LCS JULEP	88.1	--	--
T158	66.7	--	--
OGI			
BREAKTHROUGH	86.5	--	--
LONERIDER	80.8	80.9	91.2
PLAINSGOLD			
CANVAS	88.4	87.3	93
POLANSKY			
HIGH COUNTRY	93.6	--	--
ROCK STAR	81.1	--	--
WESTBRED			
WB4303	92.4	85.4	81.7
WB4303	94.7	81.8	89.3
WB4595	94.2	90	93.3
WB4699	98.8	95.3	93.6
AVERAGE	88.2	65.1	87.6

To access crop performance testing information electronically, visit our website. The information contained in this publication, plus more, is available for viewing or downloading at:

www.agronomy.k-state.edu/services/crop-performance-tests/index.html

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