

# 2023 Kansas WHEAT SEED BOOK



*Kansas Crop  
Improvement Association*

**KANSAS STATE**  
UNIVERSITY



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**KANSAS PERFORMANCE  
TESTS WITH WINTER WHEAT  
VARIETIES**

**REPORT OF PROGRESS 1179**  
Kansas State University Agricultural  
Experiment Station and Cooperative  
Extension Service

**KANSAS CERTIFIED SEED  
DIRECTORY** of producers of field  
crops including wheat, spring oats,  
triticale, rye, canola, and winter barley

## TABLE OF CONTENTS

## KANSAS PERFORMANCE TESTS WITH WINTER WHEAT VARIETIES

<b>2023 WHEAT CROP REVIEW</b> .....	5
<i>Weather and Crop Development, Diseases, Insects, Harvest Statistics, and Acreage Distribution</i>	
<b>2023 PERFORMANCE TESTS</b> .....	7
<i>Varieties, Results and Variety Characterization, Electronic Access, and Research and Duplication Policy</i>	
TABLE 1 <b>ENTRANTS</b> .....	8
TABLE 2 <b>COMPARISONS OF LEADING WINTER WHEAT VARIETIES</b> .....	8
TABLE 3 <b>NORTH CENTRAL DRYLAND TESTS</b> .....	9
TABLE 4 <b>SOUTHEAST DRYLAND TESTS</b> .....	11
TABLE 5 <b>SOFT DRYLAND TEST</b> .....	12
TABLE 6 <b>CENTRAL DRYLAND TEST</b> .....	13
TABLE 7 <b>SOUTH CENTRAL DRYLAND TESTS</b> .....	15
TABLE 8 <b>SOUTH CENTRAL NON-TREATED DRYLAND TEST</b> .....	17
TABLE 9 <b>NORTHWEST DRYLAND TESTS</b> .....	18
TABLE 10 <b>SOUTHWEST DRYLAND TESTS</b> .....	20
TABLE 11 <b>WESTERN IRRIGATED TESTS</b> .....	22

## KANSAS PERFORMANCE TESTS WITH WINTER WHEAT VARIETIES

<b>KCIA DIRECTORS, OFFICERS &amp; STAFF, PLANT VARIETY PROTECTION</b> .....	25
<b>HARD RED WINTER WHEAT</b> .....	26
122016W.....	26
AG GOLDEN.....	26
AG ICON.....	26
AG RADICAL.....	26
AM CARTWRIGHT.....	26
AP BIGFOOT.....	26
AP EVERROCK.....	27
AP LONGJACK.....	27
AP PROLIFIC.....	27
AP ROADRUNNER.....	28
AP18 AX.....	28
AP503 CL2.....	28
AVERY.....	28
BOB DOLE.....	28
BUCKHORN AX.....	28
BUTLERS GOLD.....	29
BYRD.....	29
BYRD CL PLUS.....	29
CANVAS.....	29
CP 7017 AX.....	29
CP 7050 AX.....	29
CP 7266 AX.....	29
CRESCENT AX.....	29
DOUBLESTOP CL PLUS.....	29
EVEREST.....	30
GREEN HAMMER.....	30
GUARDIAN.....	30
HIGH COUNTRY.....	31
KANMARK.....	31
KARL 92.....	31
KIVARI AX.....	31
KS AHEARN.....	31
KS DALLAS.....	31
KS HAMILTON.....	32
KS HATCHETT.....	32
KS PROVIDENCE.....	33
KS TERRITORY.....	34
KS WESTERN STAR.....	34
LANGIN.....	35
LCS ATOMIC AX.....	35
LCS CHROME.....	36
LCS GALLOWAY AX.....	36
LCS HELIX AX.....	36
LCS JULEP.....	37
LCS MINT.....	37
LCS PHOTON AX.....	37
LCS REVERE.....	37
LCS RUNNER.....	37
LCS STEEL AX.....	37
OAKLEY CL.....	37
OK CORRAL.....	38
PARADISE.....	38
RAY.....	38
ROCK STAR.....	38
SHOWDOWN.....	38
SMITH'S GOLD.....	38
SPIRIT RIDER.....	38
STRAD CL PLUS.....	38
SY 517 CL2.....	38
SY ACHIEVE CL2.....	38
SY GRIT.....	38
SY MONUMENT.....	38
SY RUGGED.....	39
SY WOLVERINE.....	39
T154.....	40
T158.....	40
TAM 114.....	40
TAM 115.....	40
TAM 204.....	40
TATANKA.....	41
WB-GRAINFIELD.....	41
WB4269.....	41
WB4303.....	41
WB4401.....	41
WB4418.....	41
WB4422.....	42
WB4483.....	43
WB4510CLP.....	43
WB4523.....	43
WB4632.....	43
WB4699.....	43
WB4733CLP.....	43
WB4792.....	43
WHISTLER.....	44
WINTERHAWK.....	44
ZENDA.....	44
<b>HARD WHITE WINTER WHEAT</b> .....	44
ASPEN.....	44
BRECK.....	44
DANBY.....	44
JOE.....	44
KS BOG BOW.....	44
KS SILVERADO.....	45
LCS WHITE LIGHTNING.....	45
MONARCH.....	45
<b>OTHER CROPS - BARLEY, TRITICALE, OATS, SOFT RED WINTER WHEAT, SPRING WHEAT</b> .....	45
<b>KCIA APPROVED CONDITIONERS</b> .....	46

## 2023 WHEAT CROP REVIEW

### Weather and Crop Development

#### *Fall growing conditions*

The 2023 winter wheat crop in Kansas had a rough start to the season due to a number of factors. First, it was following a previous drought-stress wheat crop (during the 2022 season), which was followed by a very dry summer as well. This resulted in very small – if any – soil available water in the profile at sowing for the majority of the state. Further, the month of September 2022 had very limited precipitation (less than 2 inches for the majority of the state), and whatever precipitation occurred, came in fairly early for the majority of the Kansas crop. This precipitation mostly occurred before September 15 for the majority of the state, and such precipitation never occurred in the southwest corner of the state.

With topsoil moisture available in parts of the state, growers 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, with precipitation totals between mid-September to mid-January of mostly less than 3.5 inches for the majority of the wheat growing region (in fact, in most cases less than 1 inch in southwest Kansas). The conditions above had two main consequences: 1) Fields planted in September emerged and established during the fall; fields planted during October did not emerge until sometime in November for central Kansas; and 2) in many cases, did not emerge until sometime in the spring in western Kansas. There were also a number of fields planted in October where planting into moisture was hit-or-miss, which showed very poor and scattered stand establishment going into the winter.

#### *Winter growing conditions*

The winter was mostly cold and dry. During an entire week in late December, temperatures dropped well into negative values, which, combined with the drought, led to widespread winterkill damage in north central Kansas – in particular in the region between Solomon and Phillipsburg. Departure from temperatures during January to March were about 0-5°F below average in western Kansas, and 0-1°F above average in central Kansas. Dry conditions expanded from southwest, to the entirety of western Kansas and into the central part of the state, as the majority of the crop received less than two inches of precipitation during the winter.

#### *Early spring growing conditions*

The drought conditions persisted in the spring until early to mid-May, depending on the part of the state. The spring started with two severe freeze events during the last week in April, the first event with temperatures reaching as low as about 17°F, and the second with temperatures as low as about 24°F. As the majority of the wheat in central and

south central Kansas were already going through stem elongation to heading, these freezing temperatures caused a number of fields in central Kansas to show symptoms of freeze damage. Subsequently, a hot-dry-windy event took place in early May, which resulted in as many as 18 hours of cumulative temperatures above 82°F in southwest, central, and northeast Kansas. Many fields in this region showed symptoms of heat damage, such as a very uniform scorching of the top third of the wheat heads in the field.

The combination of a season-long drought stress, severely cold conditions during the winter, two freeze events during early spring and a subsequent short period of extreme heat stress in early May resulted in extremely poor wheat conditions across the majority of the state. By mid-May, fields in central Kansas (east of a line from Smith to Pratt counties) showing mild symptoms of drought stress such as younger leaves curled, abortion of older leaves, and yellowing of lower canopy; whereas fields west of this line were showing symptoms of extreme drought stress, such as 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 the state were into the reproductive stages of development (flowering and grain elongation) only measuring 9-12 inches tall due to the prolonged stress. This led to a widespread crop abandonment in many regions of the state.

From a regional perspective, the worst crop conditions occurred in far southwest Kansas, where many times the wheat did not emerge until sometime in May and led to crop termination. Severely drought stress crops with very large area abandonment occurred from the southwest corner of the state as far east as Pratt County and as far north as Wichita County. Area abandonment also occurred in the north central part of the state (from Solomon to Norton), due to the combination of drought stress and winterkill. 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 – which in many cases was abandoned. 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 30-40 bushel per acre yield potential, as compared to a 10-15 bushel per acre yield potential in continuous wheat (3-month fallow), versus a failed crop on wheat after corn (no fallow).

### Grain filling period

Starting during mid-May, the departure from average precipitation became positive and the departure from average temperature became negative. A total of up to 6 inches of precipitation accumulated in this period, and temperatures were as many as 6°F below average – especially in late May and into early June. Combined, precipitation and temperature regimes after the initial heat stress of early-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. This meant that the majority of the grain filling period for wheat had cool and wet conditions. For most the wheat crop around the state, these conditions made the difference between full crop abandonment or harvesting an average crop. (Romulo Lollato, Kansas State University Extension Wheat Specialist; and Chip Redmond, Kansas State University Mesonet Manager)

### Diseases

In the 2022-23 growing season, wheat yield losses to disease were below historical averages. Unseasonably dry conditions through April delayed the first detection of stripe rust in Kansas until the first week of May, when trace level of stripe rust was detected on irrigated wheat in Edwards County. Cool, wet conditions in late May and early June led to establishment of stripe rust in 27 counties total by the end of the season with high incidence and severity only noted in west-central and northwestern counties.

Leaf rust was observed in multiple locations but developed late in the season and did not result in notable yield losses.

Wheat stem rust was first detected on the susceptible varieties on June 2 in Lane and Thomas counties. After ten days, stem rust incidence at Thomas County had increased to approximately 3% and was easy to find. By mid-June, low to moderate stem rust incidence was observed on susceptible varieties in Republic, Wallace, Riley, Jewell, and Decatur counties located in the north central, western, and northwest regions. The late onset of stem rust likely mitigated yield loss, although highly susceptible varieties in the most north west counties of the state may have seen a yield impact.

Wheat streak mosaic and related viruses were detected in central and western Kansas but levels were generally low. Barley yellow dwarf virus was also present statewide but levels were low. Fusarium head blight (head scab) was a notable problem in northwest Kansas, with reports of discounts and rejections due to high levels of the mycotoxin deoxynivalenol (DON, vomitoxin). These unusually high levels were likely due to highly favorable conditions (high moisture and relative humidity) in that part of the state during the end of May which coincided with the flowering window of the wheat crop.

(Kelsey Andersen, Kansas State University Wheat and Forages Specialist)

### Insects

Fall wheat planting went relatively well throughout much of the state, mainly because there were very few delays due to rain. These dry conditions also led to some spotty germination, which caused more concern about the effect insect and mite pests were having rather than what they were actually causing. However, dry conditions, plus army cutworm infestations, in both late fall and early spring in many areas especially in south and northcentral Kansas, did cause thin stands. Many of these fields that were stressed for moisture then had chinch bug infestations in the spring, which added even more stress to the plants.

Army cutworms and chinch bugs, combined with less than ideal growing conditions, resulted in many fields with reduced stands, or fields that were deemed not worth harvesting and were ultimately plowed under to make ready to plant a spring crop. (Jeff Whitworth, Kansas State University Department of Entomology)

### Harvest Statistics

The Kansas Agricultural Statistics' July estimate of the 2023 crop was 208 million bushels from 6.50 million acres, down 2% from last year's crop. Yield per harvested acre is expected to average 32 bushels per acre, down 5 bushels from last year's final yield. (July 2023, *Crops Report*, Kansas Agricultural Statistics)

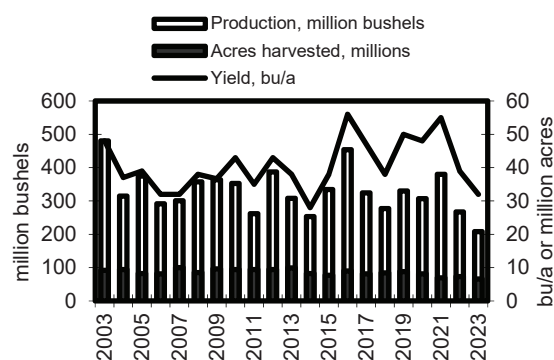


Figure 1. Historical Kansas wheat production

SY Monument remained the top-seeded variety in Kansas for the fifth consecutive year, accounting for 6.6% of the state's planted acres. Bob Dole ranked second at 4.6%. SY Wolverine ranked third at 4.1%, and WB-Grainfield dropped to the fourth place at 3.9%. Winterhawk rounded out the top 5 with 3.8% of the seeded acreage in Kansas. (March 2023, *Kansas Wheat Varieties*, Kansas Agricultural Statistics)

Acreeage Distribution

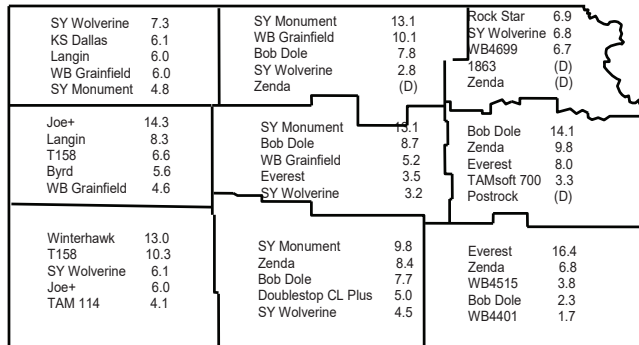


Figure 2. Leading wheat varieties in Kansas; percentage of seeded acreage for 2023 crop

2023 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.

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.k-state.edu/outreach-and-services/crop-performance-tests](http://agronomy.k-state.edu/outreach-and-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 2023 entrants are listed in Table 1.

Results and Variety Characterization

Results from Kansas tests are presented in Tables 3 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.k-state.edu/outreach-and-services/crop-performance-tests](http://agronomy.k-state.edu/outreach-and-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 1179 ‘2023 Kansas Performance Tests with Winter Wheat Varieties,’ or the Kansas Crop Performance Test website, [agronomy.k-state.edu/outreach-and-services/crop-performance-tests](http://agronomy.k-state.edu/outreach-and-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 2023 Kansas wheat performance tests**

<p><b>AgriMAXX Wheat Company</b> 7167 Highbanks Road Mascoutah, IL 62258 855-629-9432</p>	<p><b>Becks Hybrids</b> 6767 E 276th Street Atlanta, IN 46031 317-984-5226</p>	<p><b>Oklahoma Genetics, Inc</b> P.O. Box 2113 Stillwater, OK 74076-2113 405-744-7741</p>
<p><b>AgriPro Wheat, Inc.</b> 11783 Ascher Rd. Junction City, KS 66441 620-532-6283</p>	<p><b>Kansas Wheat Alliance</b> 1900 Kimball Avenue Manhattan, KS 66502 785-320-4080</p>	<p><b>PlainsGold</b> 4026 S. Timberline Road Fort Collins, CO 80525 970-702-1460</p>
<p><b>Agricultural Research Center-KAES</b> 1232 240<sup>th</sup> Ave. Hays, KS 67601 785-625-3425</p>	<p><b>Limagrain Cereal Seeds</b> 2040 SE Frontage Road Fort Collins, CO 80525 970-231-8875</p>	<p><b>Polansky Seed, Inc</b> 2729 M Street Belleville, KS 66935 785-527-2271</p>
<p><b>AGSECO</b> P.O. Box 7 Girard, KS 66743 620-724-6223</p>	<p><b>Meridian</b> 16553 37th St SE, Suite 3 Mapleton, ND 58059 866-282-7333</p>	<p><b>Watley Seed Company</b> 10590 Texas HWY 15 Spearman, TX 79081 806-659-3838</p>
<p><b>ARMOR/CROPLAN</b> 4001 Lexington Ave N Arden Hills, MN 55126 651-481-2222</p>	<p><b>Northern Star Seed</b> 1114 S Earl Ave Lafayette, IN 47904 765-430-0131</p>	<p><b>WestBred-Bayer Crop Sci.</b> 800 North Lindbergh Boulevard St. Louis, MO 63167 314-694-1000</p>
<p><b>Beachners Grain, Inc</b> 2600 Flynn Drive Parsons, KS 67357 620-421-1170</p>		

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

Variety <sup>1</sup>	% of Kansas acres 2023	Agronomic Ratings <sup>2</sup>				Relative milling and quality <sup>3</sup>	Resistance or tolerance to: <sup>2</sup>										
		Straw strength <sup>2</sup>	Maturity	Height	Soil-mosaic		Spindle mosaic	Wheat mosaic	Barley dwarf	Leaf rust	Stem rust	Septoria			Powd-mildew	Head scab	Hes-fly
												Stripe rust	tritici blotch	Tan spot			
SY Monument	6.8	5	8	6	AC	1	1	7	6	4	5	5	4	5	5	7	7
Bob Dole	4.6	5	5	8	EX	1	--	8	7	1	1	1	3	3	5	5	9
SY Wolverine	4.1	1	3	3	AC	1	--	5	5	4	1	7	4	4	3	9	9
WB-Grainfield	3.9	3	6	7	AC	1	1	8	7	6	7	7	6	6	6	7	8
Winterhawk	3.8	5	5	8	AC	1	1	7	5	7	6	6	7	6	6	7	3
T158	3.3	1	3	5	AC	2	2	5	5	8	8	3	7	4	2	8	4
Joe+	3.2	2	7	7	AC	8	8	6	7	7	3	8	3	8	5	7	2
Zenda	3.1	2	4	6	AC	1	1	7	4	5	3	4	4	5	5	4	5
Everest	2.3	5	1	6	LD	1	1	7	4	3	8	8	4	7	3	4	6
Langin	1.9	6	5	3	EX	1	1	7	--	7	8	3	7	8	7	8	8
TAM 114	1.8	4	6	6	EX	8	8	7	6	4	7	3	5	7	5	7	7
Doublestop CL Plus	1.6	2	9	7	AC	1	1	6	6	3	2	4	6	6	5	8	9
KS Dallas	1.5	5	5	5	AC	9	--	1	2	1	1	5	--	--	7	9	7
Byrd	1.4	1	5	5	AC	2	2	5	7	8	8	8	--	7	3	7	9
LCS Chrome	1.3	3	8	7	AC	1	1	7	7	2	2	4	4	4	6	7	1
Tatanka	1.3	6	5	5	AC	1	1	7	5	6	2	2	7	7	7	7	9
Larry	1.3	3	5	6	--	1	1	6	7	7	2	5	6	5	5	7	9
Smith's Gold	1.2	5	5	5	EX	1	--	--	5	3	1	1	3	7	3	9	1
SY Rugged	1.1	5	3	1	EX	1	--	7	9	3	1	1	7	7	7	9	9
WB4515	1.1	2	7	5	AC	1	--	9	3	7	1	5	5	5	9	9	5
WB4792	1.1	--	7	5	EX	8	--	5	3	1	--	--	--	5	7	9	3
LCS Valiant	1.0	4	4	5	--	1	1	8	5	6	7	6	--	6	8	6	1
Rock Star	1.0	2	6	5	--	1	1	6	6	5	3	2	3	3	7	6	--
WB4699	1.0	--	7	1	AC	3	--	5	3	3	--	--	--	3	1	5	5
LCS Mint	0.9	5	5	7	AC	1	1	6	7	7	4	5	5	5	6	8	9
Avery	0.8	5	7	7	AC	1	1	5	7	8	8	8	--	7	3	7	9
Oakley CL	0.8	6	7	7	AC	7	7	3	6	5	2	4	5	6	2	5	9
Paradise	0.8	5	4	5	--	1	1	6	7	5	3	2	--	4	--	7	9
Canvas	0.7	1	5	3	EX	5	--	1	--	7	1	1	--	--	--	--	--
Postrock	0.7	4	2	5	AC	8	8	5	7	8	3	8	5	6	1	8	8
KS Western Star	0.6	2	4	6	AC	8	8	7	7	8	3	8	5	6	6	7	6
TAM 115	0.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Blends	9.4																
Other White	1.5																
Other Red	25.0																
Other Soft	3.8																

<sup>1</sup>Hard white variety Scale: 1=Best 1=Early 1=Short Scale: 1=Most resistant/tolerant  
 9=Poor 9=Late 9=Tall 9=Least resistant/tolerant

<sup>2</sup> Ratings by Andersen et al., Final ratings and descriptions of disease and insect pests are available in "Kansas Wheat Variety Guide 2023" Publication MF991 from Kansas State University, <https://bookstore.ksre.ksu.edu/pubs/MF991.pdf>

<sup>3</sup> 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. 2023 NORTH CENTRAL Kansas dryland winter wheat performance test**

Brand / Name	BE <sup>1</sup>	BL <sup>2</sup>	Av.	BE	BL	Av.	BE	BL	Av.
	yield (bu/a)			% of test average			tw (lb/bu)		
<b>AgriMAXX</b>									
CARTWRIGHT	17.7	--	17.7	90.5	--	90.5	50.5	--	50.5
<b>AGSECO</b>									
AG ICON	17.8	--	17.8	90.9	--	90.9	55.5	--	55.5
AG RADICAL	24.1	--	24.1	123.2	--	123.2	59.1	--	59.1
<b>AGRIPRO</b>									
AP BIGFOOT	13.8	--	13.8	70.5	--	70.5	57.8	--	57.8
AP EVERROCK	16.9	--	16.9	86.1	--	86.1	51.4	--	51.4
AP PROLIFIC	19.6	--	19.6	100.2	--	100.2	56.9	--	56.9
AP18 AX	18.5	--	18.5	94.6	--	94.6	59.2	--	59.2
SY WOLVERINE	18.7	--	18.7	95.4	--	95.4	56.3	--	56.3
<b>KWA</b>									
KS AHEARN	19.2	--	19.2	98.2	--	98.2	55.5	--	55.5
KS HATCHETT	18.3	--	18.3	93.3	--	93.3	56.9	--	56.9
KS MAKO	22.8	--	22.8	116.6	--	116.6	60.3	--	60.3
KS PROVIDENCE	20.6	--	20.6	105.0	--	105.0	58.8	--	58.8
ZENDA	22.5	--	22.5	114.7	--	114.7	61.1	--	61.1
<b>LIMAGRAIN</b>									
LCH19DH-152-6	18.7	--	18.7	95.6	--	95.6	57.8	--	57.8
LCS ATOMIC AX	14.8	--	14.8	75.8	--	75.8	56.1	--	56.1
LCS CHROME	20.1	--	20.1	102.6	--	102.6	58.9	--	58.9
LCS GALLOWAY AX	17.3	--	17.3	88.1	--	88.1	55.5	--	55.5
LCS HELIX AX	19.7	--	19.7	100.5	--	100.5	59.7	--	59.7
LCS JULEP	16.9	--	16.9	86.1	--	86.1	54.0	--	54.0
LCS STEEL AX	19.0	--	19.0	96.9	--	96.9	58.6	--	58.6
<b>MERIDIAN</b>									
MS MAVERICK	26.7	--	26.7	136.5	--	136.5	60.5	--	60.5
<b>OGI</b>									
SHOWDOWN	22.2	--	22.2	113.5	--	113.5	59.2	--	59.2
<b>PLAINSGOLD</b>									
CANVAS	20.6	--	20.6	105.0	--	105.0	59.4	--	59.4
LANGIN	21.9	--	21.9	111.8	--	111.8	60.8	--	60.8
WHISTLER	29.1	--	29.1	148.7	--	148.7	58.5	--	58.5
<b>POLANSKY</b>									
HIGH COUNTRY	16.6	--	16.6	84.9	--	84.9	59.0	--	59.0
PARADISE	15.6	--	15.6	79.6	--	79.6	56.5	--	56.5
ROCKSTAR	21.5	--	21.5	109.7	--	109.7	59.2	--	59.2
<b>WESTBRED</b>									
WB4401	15.7	--	15.7	80.1	--	80.1	60.1	--	60.1
WB4422	21.1	--	21.1	107.9	--	107.9	59.8	--	59.8
WB4523	17.0	--	17.0	86.8	--	86.8	59.1	--	59.1
WB4632	19.8	--	19.8	101.3	--	101.3	57.8	--	57.8
WB4699	23.5	--	23.5	120.1	--	120.1	59.8	--	59.8
AVERAGE	19.6	--	19.6	100.0	--	100.0	57.8	--	57.8
CV (%)	3.8	--	3.8	3.8	--	3.8	2.0	--	2.0
LSD (0.05)	3.2	--	3.2	16.5	--	16.5	2.5	--	2.5

<sup>1</sup>BE=Belleville, KS, North Central Experiment Field, Republic County.

<sup>2</sup>BL=Beloit, KS. farmer's field, Mitchell County. *Abandoned: drought and winterkill.*

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

**Table 3 continued. 2023 NORTH CENTRAL Kansas dryland winter wheat performance test**

<b>2022-2023 Season</b>	<b>Belleville</b>	<b>Beloit</b>
Date Planted	10/27/2022	Abnd.
Previous Crop	Soybean	--
Primary Tillage	Conventional	--
Irrigated	No	No
Date Harvested	7/12/2023	--
Seasonal precipitation (inches)	9.6	9.5
Normal precipitation (inches)	20.6	19.7

**NORTH CENTRAL multi-year averages (2021-2023)**

<b>Brand / Name</b>	<b>-BE-</b>		<b>BL<sup>2</sup></b>	
	<b>2 yr</b>	<b>3 yr</b>	<b>2022</b>	<b>2021</b>
	<b>(bushels/acre)</b>			
<b>AGRIMAXX</b>				
CARTWRIGHT	20.4	40.5	79.4	66.3
<b>AGRIPRO</b>				
AP BIGFOOT	17.9	43.8	78.0	--
AP EVERROCK	20.6	36.8	84.6	69.5
AP18 AX	18.8	--	--	--
SY WOLVERINE	23.1	42.5	82.3	66.9
<b>AGSECO</b>				
AG ICON	21.5	42.5	82.9	69.7
AG RADICAL	24.1	43.8	81.4	70.0
<b>KWA</b>				
KS AHEARN	23.7	46.6	90.4	--
KS HATCHETT	21.4	41.7	77.5	--
KS PROVIDENCE	24.7	--	83.1	--
ZENDA	25.2	42.9	74.5	62.0
<b>LIMAGRAIN</b>				
LCS ATOMIC AX	20.6	--	87.8	--
LCS CHROME	22.0	40.4	81.1	70.6
LCS HELIX AX	20.8	44.2	91.2	--
<b>MERIDIAN</b>				
MS MAVERICK	28.9	47.9	89.3	--
<b>OGI</b>				
SHOWDOWN	23.8	--	--	63.6
<b>POLANSKY</b>				
HIGH COUNTRY	19.2	38.3	79.2	--
PARADISE	17.9	40.3	81.2	63.4
ROCK STAR	22.7	44.4	89.1	74.1
<b>WESTBRED</b>				
WB4401	20.5	48.4	98.1	83.2
WB4699	24.3	45.6	86.5	72.5
AVERAGE	22.2	43.5	84.6	70.5



**Table 4. 2023 SOUTHEAST Kansas dryland winter wheat performance test**

Brand / Name	OT <sup>1</sup>	PA <sup>2</sup>	Av.	OT	PA	Av.	OT	PA	Av.	OT	OT
	yield (bu/a)			% of test average			test weight (lb/bu)			heading (date)	ht (in)
<b>AgriMAXX</b>											
Cartwright	69.0	65.4	67.2	100.4	90.2	95.3	60.3	60.2	60.2	4/29/2023	28.5
<b>AGRIPRO</b>											
AP PROLIFIC	65.2	69.6	67.4	94.9	96.0	95.4	59.1	61.0	60.0	4/28/2023	29.0
<b>AGSECO</b>											
AG RADICAL	67.9	86.9	77.4	98.8	119.7	109.3	60.2	60.7	60.4	4/29/2023	29.0
<b>KWA</b>											
EVEREST	63.1	65.5	64.3	91.7	90.3	91.0	60.3	61.0	60.6	4/24/2023	29.0
KS MAKO	69.4	71.1	70.2	100.9	98.0	99.4	62.4	61.1	61.7	5/1/2023	28.5
KS PROVIDENCE	78.5	77.2	77.8	114.1	106.5	110.3	61.0	61.4	61.2	4/29/2023	29.3
ZENDA	68.9	58.0	63.4	100.1	80.0	90.0	61.1	61.5	61.3	5/1/2023	29.0
<b>POLANSKY</b>											
HIGH COUNTRY	64.3	64.7	64.5	93.5	89.1	91.3	61.5	60.4	60.9	4/25/2023	28.8
ROCKSTAR	73.4	71.4	72.4	106.7	98.4	102.5	58.7	60.9	59.8	5/3/2023	29.0
<b>WESTBRED</b>											
WB4269	59.5	75.3	67.4	86.6	103.8	95.2	60.6	60.4	60.5	4/30/2023	28.5
WB4401	72.9	84.4	78.6	105.9	116.3	111.1	60.5	60.4	60.5	4/26/2023	29.3
WB4422	74.6	80.2	77.4	108.5	110.6	109.5	60.6	61.7	61.1	5/1/2023	29.0
WB4523	74.1	80.7	77.4	107.7	111.2	109.4	59.1	61.0	60.1	5/1/2023	28.8
WB4632	69.1	61.5	65.3	100.4	84.7	92.6	60.9	60.5	60.7	4/29/2023	28.5
WB4699	61.8	76.4	69.1	89.8	105.3	97.6	60.9	60.0	60.5	5/1/2023	28.8
AVERAGE	68.8	72.5	70.7	100.0	100.0	100.0	60.5	60.8	60.6	4/29/2023	28.9
CV (%)	5.0	10.4	--	5.0	10.4	--	1.1	0.6	--	1.1	0.3
LSD (0.05)*	5.1	8.3	--	7.5	11.4	--	0.9	0.5	--	2.3	0.3

<sup>1</sup> OT=Ottawa, Kansas, East Central Experiment Field, Franklin County.

<sup>2</sup> PA=Parsons, Kansas, Southeast Research-Extension Center, Labette County.

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

2022-2023 Season	Ottawa	Parsons
Date Planted	11/2/2022	10/10/2022
Previous Crop	Soybean	Soybean
Primary Tillage	Conventional	Conventional
Irrigated	No	No
Date Harvested	6/27/2023	6/20/2023
Seasonal precipitation (inches)	23.3	24.6
Normal precipitation (inches)	26.9	30.0

**SOUTHEAST Kansas multi-year averages (2021-2023)**

Brand / Name	-OT-		-PA-	
	2 yr	3 yr	2 yr	3 yr
	(bushels/acre)			
<b>AGRIMAXX</b>				
CARTWRIGHT	65.3	50.7	65.4	67.1
<b>AGRIPRO</b>				
PROLIFIC	71.2	--	75.9	--
<b>AGSECO</b>				
AG RADICAL	67.2	51.0	81.1	63.4
<b>KWA</b>				
EVEREST	61.3	49.3	64.8	59.8
ZENDA	67.5	53.3	72.1	70.1
<b>POLANSKY</b>				
ROCK STAR	69.8	57.5	74.8	72.4
<b>WESTBRED</b>				
WB4269	62.1	51.9	71.2	68.1
WB4401	67.1	52.1	78.7	83.1
WB4422	77.9	--	82.6	--
WB4523	77.7	--	76.5	--
WB4699	65.9	53.6	79.5	66.2
AVERAGE	68.4	53.5	73.6	67.5

Table 5. 2023 SOUTHEAST Kansas SOFT winter wheat performance test

Brand / Name	OT <sup>1</sup>	PA <sup>2</sup>	Av.	OT	PA	Av.	OT	PA	Av.	OT
	yield (bu/a)			% of test average			test weight (lb/bu)			heading (date)
<b>AgriMAXX</b>										
503	83.9	77.0	80.4	106.4	91.9	99.1	58.1	58.8	58.4	5/1/2023
505	79.3	85.7	82.5	100.6	102.3	101.5	59.9	60.2	60.1	5/2/2023
513	78.2	81.4	79.8	99.1	97.2	98.1	60.4	59.5	59.9	5/1/2023
514	75.7	84.6	80.2	96.1	101.0	98.5	57.4	58.8	58.1	5/1/2023
516	75.8	92.3	84.1	96.1	110.2	103.2	59.9	59.4	59.7	5/1/2023
525	77.4	80.1	78.8	98.2	95.6	96.9	60.2	58.7	59.4	5/2/2023
535	73.5	84.2	78.8	93.2	100.5	96.8	60.3	60.2	60.2	5/1/2023
<b>BEACHNER</b>										
BG206	78.7	90.7	84.7	99.8	108.3	104.0	59.2	58.4	58.8	5/1/2023
BG208	74.7	83.4	79.1	94.8	99.6	97.2	58.2	59.6	58.9	5/1/2023
<b>BECKS</b>										
720	77.8	81.9	79.8	98.6	97.7	98.2	61.1	59.6	60.4	4/30/2023
722	85.0	83.3	84.1	107.8	99.4	103.6	57.6	58.9	58.3	5/1/2023
724	82.1	88.1	85.1	104.1	105.2	104.7	61.2	60.1	60.6	5/1/2023
725	75.7	81.2	78.4	96.0	96.9	96.4	59.6	59.2	59.4	5/1/2023
732	76.6	90.9	83.7	97.1	108.6	102.8	60.0	59.4	59.7	5/1/2023
<b>NSS</b>										
1419	85.4	81.1	83.3	108.3	96.8	102.6	59.6	60.1	59.9	5/1/2023
EXP15	80.9	89.4	85.1	102.5	106.7	104.6	60.8	58.5	59.6	5/2/2023
EXP24	83.8	82.7	83.3	106.3	98.7	102.5	59.8	59.7	59.8	5/1/2023
EXP94	79.1	80.7	79.9	100.2	96.3	98.3	57.8	58.8	58.3	5/1/2023
<b>WESTBRED</b>										
WB2606	74.9	72.8	73.8	94.9	86.9	90.9	57.9	58.8	58.3	5/5/2023
AVERAGE	78.9	83.8	81.3	100.0	100.0	100.0	59.4	59.3	59.4	5/1/2023
CV (%)	6.1	7.3	--	6.1	7.3	--	0.8	0.6	--	0.5
LSD (0.05)*	3.6	4.8	--	4.6	5.8	--	1.2	0.6	--	1.0

<sup>1</sup> OT=Ottawa, Kansas, East Central Experiment Field, Franklin County.

<sup>2</sup> PA=Parsons, Kansas, Southeast Research-Extension Center, Lette County.

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

2022-2023 Season	Ottawa	Parsons
Date Planted	11/2/2022	10/10/2022
Previous Crop	Soybean	Soybean
Primary Tillage	Conventional	Conventional
Irrigated	No	No
Date Harvested	6/27/2023	6/20/2023
Seasonal precipitation (inches)	23.3	24.6
Normal precipitation (inches)	26.9	30.0

**SOUTHEAST Kansas SOFT multi-year averages (2021-2023)**

Brand / Name	-OT-		-PA-	
	2 yr	3 yr	2 yr	3 yr
	(bushels/acre)			
<b>AgriMAXX</b>				
503	--	--	78.8	86.7
505	--	--	87.3	91.6
513	--	--	84.2	89.2
514	--	--	86.1	88.5
516	--	--	79.8	--
525	--	--	83.6	--
<b>BEACHNER</b>				
BG206	--	--	89.7	91.9
BG208	--	--	85.0	86.6
<b>NSS</b>				
1419	--	--	--	83.2
<b>WESTBRED</b>				
WB2606	--	--	77.8	--
AVERAGE	--	--	84.5	86.5

**Table 6. 2023 CENTRAL Kansas dryland winter wheat performance test**

Brand / Name	yield (bu/a)				% of test average				test weight (lb/bu)			
	EL <sup>1</sup>	HL <sup>2</sup>	AS <sup>3</sup>	Av.	EL	HL	AS	Av.	EL	HL	AS	Av.
<b>AgriMAXX</b>												
Cartwright	37.4	--	51.1	44.2	100.5	--	95.6	98.1	54.7	--	54.7	54.7
<b>AGRIPRO</b>												
AP BIGFOOT	34.9	--	45.9	40.4	93.8	--	85.9	89.8	53.6	--	55.3	54.5
AP EverRock	34.9	--	48.7	41.8	93.9	--	91.1	92.5	53.0	--	54.6	53.8
AP PROLIFIC	32.3	--	53.3	42.8	86.9	--	99.8	93.4	52.3	--	54.9	53.6
AP18 AX	34.8	--	47.3	41.0	93.6	--	88.5	91.0	50.8	--	54.9	52.8
BOB DOLE	42.4	--	52.7	47.6	114.1	--	98.7	106.4	52.5	--	54.8	53.7
SY WOLVERINE	26.2	--	53.8	40.0	70.6	--	100.7	85.7	51.3	--	55.3	53.3
<b>AGSECO</b>												
AG ICON	39.9	--	55.5	47.7	107.5	--	104.0	105.7	53.8	--	56.0	54.9
AG RADICAL	37.5	--	57.3	47.4	100.9	--	107.3	104.1	53.3	--	55.1	54.2
<b>ARMOR</b>												
EXP55	46.1	--	56.4	51.3	124.2	--	105.7	114.9	53.1	--	56.5	54.8
EXP65AX	36.3	--	53.4	44.9	97.8	--	100.0	98.9	52.4	--	55.8	54.1
<b>CROPLAN</b>												
CP7017AX	40.7	--	55.6	48.1	109.4	--	104.1	106.8	52.6	--	55.4	54.0
CP7050AX	30.5	--	51.7	41.1	82.1	--	96.8	89.4	50.8	--	57.6	54.2
CP7266AX	33.9	--	49.2	41.6	91.2	--	92.2	91.7	52.5	--	56.0	54.3
CP7869	40.4	--	56.5	48.5	108.8	--	105.7	107.3	54.3	--	56.1	55.2
CP7909	29.8	--	49.1	39.5	80.2	--	92.0	86.1	51.8	--	55.5	53.7
<b>KWA</b>												
KS AHEARN	26.9	--	50.0	38.4	72.4	--	93.6	83.0	51.0	--	53.7	52.3
KS HATCHETT	29.5	--	49.7	39.6	79.5	--	93.0	86.3	52.6	--	54.9	53.7
KS MAKO	48.5	--	62.1	55.3	130.5	--	116.2	123.3	55.7	--	55.7	55.7
KS PROVIDENCE	50.4	--	58.5	54.4	135.8	--	109.4	122.6	53.8	--	55.0	54.4
ZENDA	34.9	--	52.9	43.9	94.0	--	99.1	96.5	52.9	--	56.6	54.8
<b>LIMAGRAIN</b>												
LCH19DH-152-6	39.5	--	53.1	46.3	106.4	--	99.3	102.9	53.0	--	54.8	53.9
LCS ATOMIC AX	34.4	--	53.3	43.8	92.6	--	99.7	96.2	54.7	--	56.9	55.8
LCS CHROME	32.6	--	52.6	42.6	87.7	--	98.5	93.1	51.5	--	54.9	53.2
LCS GALLOWAY AX	32.8	--	51.4	42.1	88.2	--	96.3	92.2	54.2	--	54.6	54.4
LCS HELIX AX	34.5	--	51.2	42.9	92.9	--	95.9	94.4	52.9	--	56.4	54.6
LCS JULEP	43.8	--	59.4	51.6	117.8	--	111.2	114.5	53.5	--	56.3	54.9
LCS STEEL AX	37.0	--	58.3	47.7	99.7	--	109.2	104.4	50.8	--	54.4	52.6
LCS VALIANT	36.1	--	47.3	41.7	97.1	--	88.5	92.8	52.9	--	55.2	54.1
<b>MERIDIAN</b>												
MS MAVERICK	23.1	--	51.9	37.5	62.2	--	97.2	79.7	52.6	--	56.2	54.4
<b>OGI</b>												
DOUBLESTOP CL+	35.0	--	53.7	44.3	94.1	--	100.6	97.3	52.2	--	57.1	54.7
OK18510	39.0	--	54.1	46.5	104.9	--	101.2	103.1	53.7	--	55.3	54.5
SHOWDOWN	37.0	--	49.4	43.2	99.6	--	92.5	96.1	52.6	--	55.5	54.0
<b>PLAINSGOLD</b>												
CANVAS	48.0	--	62.0	55.0	129.2	--	116.2	122.7	53.2	--	56.7	54.9
CRESCENT AX	30.6	--	51.8	41.2	82.3	--	97.0	89.6	53.2	--	55.8	54.5
GUARDIAN	38.5	--	56.6	47.6	103.6	--	106.0	104.8	54.4	--	57.4	55.9
KIVARI AX	47.5	--	53.8	50.6	127.7	--	100.8	114.3	53.6	--	55.3	54.4
WHISTLER	57.6	--	53.4	55.5	155.1	--	100.0	127.5	53.0	--	53.8	53.4
<b>POLANSKY</b>												
HIGH COUNTRY	42.1	--	52.1	47.1	113.2	--	97.5	105.4	53.6	--	57.0	55.3
PARADISE	35.2	--	43.1	39.2	94.7	--	80.8	87.7	52.5	--	55.9	54.2
ROCKSTAR	39.0	--	56.9	48.0	105.1	--	106.6	105.8	51.3	--	54.6	52.9
<b>WESTBRED</b>												
WB4401	32.8	--	55.7	44.3	88.3	--	104.3	96.3	53.3	--	55.3	54.3
WB4422	41.1	--	67.0	54.0	110.6	--	125.4	118.0	53.0	--	57.3	55.2
WB4523	32.2	--	51.9	42.0	86.6	--	97.1	91.8	54.5	--	53.9	54.2
WB4632	32.3	--	52.3	42.3	87.0	--	97.9	92.5	52.7	--	56.8	54.8
WB4699	39.3	--	54.0	46.6	105.6	--	101.2	103.4	53.1	--	53.9	53.5
AVERAGE	37.2	--	53.4	45.3	100.0	--	100.0	100.0	52.9	--	55.5	54.2
CV (%)	7.2	--	7.5	--	7.2	--	7.5	--	1.9	--	0.8	--
LSD (0.05)	6.6	--	4.3	--	17.7	--	8.1	--	1.1	--	1.0	--

<sup>1</sup>EL=Ellsworth, KS, farmer's field, Ellsworth County.

<sup>2</sup>HL=Hillsboro, KS, Marion County. *Abandoned: poor stand establishment.*

<sup>3</sup>AS=Assaria, KS, farmer's field, Saline County.

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

Table 6 continued. 2023 CENTRAL Kansas dryland winter wheat performance test

2022-2023 Season	Ellsworth	Hillsboro	Assaria
Date Planted	10/5/2022	10/19/2022	10/31/2022
Previous Crop	Wheat	Wheat	Soybean
Primary Tillage	Minimum	Minimum	Minimum
Irrigated	No	No	No
Date Harvested	7/10/2023	Abandoned	7/10/2023
Seasonal precipitation (inches)	12.7	13.7	13.7
Normal precipitation (inches)	21.1	22.2	22.2

## CENTRAL Kansas multi-year averages (2021-2023)

Brand / Name	-EL-		-HL-	-AS-	
	2 yr	3 yr	2022	2 yr	3 yr
	(bushels/acre)				
<b>AGRIMAXX</b>					
CARTWRIGHT	56.8	65.2	75.7	61.0	65.9
<b>AGRIPRO</b>					
AP BIGFOOT	48.3	62.6	84.8	55.5	65.2
AP EVERROCK	48.4	64.7	89.2	56.6	67.4
AP PROLIFIC	51.8	--	93.0	51.8	--
AP18 AX	53.3	--	87.3	53.3	--
BOB DOLE	55.0	63.0	88.9	59.0	69.0
SY WOLVERINE	54.7	68.9	101.0	61.8	74.9
<b>AGSECO</b>					
AG ICON	51.1	56.4	76.9	53.8	61.5
AG RADICAL	50.4	64.9	91.1	57.7	68.8
<b>CROPLAN</b>					
CP7017AX	53.6	67.9	91.8	60.8	71.1
CP7266AX	46.9	--	71.4	46.9	--
CP7909	41.7	62.8	87.0	52.3	63.8
<b>KWA</b>					
KS AHEARN	49.8	61.7	79.1	55.8	63.5
KS HATCHETT	52.0	63.6	82.2	57.8	65.9
KS PROVIDENCE	61.6	--	89.0	61.6	--
ZENDA	47.4	59.6	85.2	53.5	64.1
<b>LIMAGRAIN</b>					
LCS ATOMIC AX	46.3	65.5	87.1	55.9	66.3
LCS CHROME	53.1	65.0	84.9	59.1	67.7
LCS HELIX AX	54.2	68.0	87.0	61.1	69.7
LCS JULEP	61.5	--	88.1	61.5	--
LCS STEEL AX	60.5	--	89.7	60.5	--
LCS VALIANT	46.7	58.1	89.6	52.4	64.8
<b>MERIDIAN</b>					
MS MAVERICK	47.0	57.8	86.8	52.4	63.9
<b>OGI</b>					
DOUBLESTOP CL PLUS	50.7	--	80.4	50.7	--
SHOWDOWN	55.1	69.2	87.9	62.2	70.7
<b>PLAINSGOLD</b>					
CANVAS	53.7	60.9	85.9	57.3	66.8
CRESCENT AX	46.2	64.3	83.0	55.3	64.5
GUARDIAN	52.1	--	86.1	52.1	--
KIVARI AX	61.7	--	75.9	61.7	--
WHISTLER	62.1	75.7	87.4	68.9	75.1
<b>POLANSKY</b>					
HIGH COUNTRY	52.9	67.8	81.9	60.4	67.5
PARADISE	53.5	67.0	83.9	60.3	68.1
ROCK STAR	55.1	65.7	88.2	60.4	69.7
<b>WESTBRED</b>					
WB4401	50.0	64.8	95.6	57.4	70.1
WB4422	62.3	--	101.6	62.3	--
WB4523	51.1	--	91.9	51.1	--
WB4699	53.1	67.8	88.0	60.5	69.6
AVERAGE	52.8	64.8	85.4	58.8	67.7

**Table 7. 2023 SOUTH CENTRAL Kansas dryland winter wheat performance test**

Brand / Name	NW <sup>1</sup>	HU <sup>2</sup>	SJ <sup>3</sup>	Av.	NW	HU	SJ	Av.	NW	HU	SJ	Av.
	yield (bu/a)				% of test average				test weight (lb/bu)			
<b>AgriMAXX</b>												
Cartwright	41.9	56.3	24.5	40.9	101.9	97.8	97.8	99.2	55.2	58.7	51.4	55.1
<b>AGRIPRO</b>												
AP BIGFOOT	29.6	58.4	19.3	35.8	71.9	101.4	77.2	83.5	53.3	59.3	51.0	54.5
AP EverRock	25.8	54.1	22.3	34.1	62.8	94.0	88.9	81.9	52.5	57.9	51.2	53.9
AP PROLIFIC	43.6	64.7	26.4	44.9	105.9	112.5	105.5	108.0	55.0	60.0	53.3	56.1
AP18 AX	41.2	53.4	24.8	39.8	100.1	92.8	99.1	97.3	52.9	58.2	51.3	54.1
BOB DOLE	35.3	53.1	30.7	39.7	85.7	92.2	122.4	100.1	54.1	59.5	52.6	55.4
SY WOLVERINE	53.2	61.0	22.8	45.7	129.3	105.9	91.0	108.7	53.4	59.0	51.6	54.7
<b>AGSECO</b>												
AG ICON	49.7	58.3	23.4	43.8	120.9	101.3	93.6	105.2	56.4	58.5	51.9	55.6
AG RADICAL	42.7	54.7	24.9	40.8	103.9	95.1	99.5	99.5	53.7	58.9	51.0	54.5
<b>ARMOR</b>												
EXP55	46.8	65.7	24.1	45.5	113.7	114.2	96.2	108.0	56.3	59.2	52.3	55.9
EXP65AX	24.2	62.8	24.9	37.3	58.9	109.1	99.3	89.1	55.2	59.3	51.9	55.4
<b>CROPLAN</b>												
CP7017AX	43.6	61.6	24.7	43.3	106.0	107.1	98.8	104.0	56.3	59.7	53.4	56.4
CP7050AX	25.2	50.8	20.4	32.1	61.3	88.3	81.5	77.0	54.3	59.1	47.9	53.8
CP7266AX	35.4	67.4	23.9	42.3	86.0	117.2	95.5	99.6	54.1	58.8	51.7	54.8
CP7869	42.7	57.8	26.0	42.2	103.7	100.4	103.9	102.7	56.1	58.5	52.3	55.6
CP7909	41.6	52.6	23.4	39.2	101.2	91.5	93.5	95.4	55.0	59.0	50.8	55.0
<b>KWA</b>												
KS AHEARN	41.6	55.3	20.6	39.2	101.1	96.1	82.0	93.1	53.7	58.4	50.9	54.3
KS HATCHETT	37.3	53.8	21.3	37.5	90.5	93.4	85.1	89.7	53.3	57.4	50.8	53.8
KS MAKO	32.3	64.1	30.7	42.4	78.6	111.3	122.6	104.2	56.0	59.9	54.5	56.8
KS PROVIDENCE	37.5	63.2	26.1	42.3	91.0	109.8	104.4	101.7	53.9	58.6	52.8	55.1
KS SILVERADO	38.8	55.1	25.1	39.6	94.2	95.7	100.1	96.7	54.4	60.3	52.1	55.6
KS WESTERN STAR	55.3	55.2	25.7	45.4	134.4	95.9	102.5	110.9	56.9	60.0	52.8	56.5
ZENDA	41.1	57.5	26.6	41.7	100.0	99.9	106.3	102.0	55.0	60.4	53.3	56.2
<b>LIMAGRAIN</b>												
LCH19DH-152-6	49.4	53.5	27.8	43.6	120.0	93.0	110.9	108.0	55.3	58.0	53.2	55.5
LCS ATOMIC AX	40.4	45.4	19.0	34.9	98.1	78.8	75.9	84.3	54.9	59.3	51.2	55.1
LCS CHROME	50.0	58.0	27.5	45.2	121.5	100.8	109.7	110.7	56.2	59.0	54.0	56.4
LCS GALLOWAY AX	41.7	56.5	23.2	40.5	101.2	98.3	92.5	97.3	54.3	59.1	51.5	55.0
LCS HELIX AX	34.4	57.7	20.7	37.6	83.6	100.4	82.7	88.9	54.9	59.3	50.8	55.0
LCS JULEP	50.2	61.7	28.5	46.8	121.9	107.3	113.9	114.4	57.1	61.0	54.6	57.6
LCS STEEL AX	52.9	68.3	34.0	51.7	128.6	118.6	135.5	127.6	54.9	58.4	52.8	55.4
LCS VALIANT	29.8	51.8	24.3	35.3	72.3	90.1	97.0	86.5	53.0	58.1	51.6	54.2
<b>MERIDIAN</b>												
MS MAVERICK	54.7	57.2	27.0	46.3	132.8	99.4	107.6	113.3	57.2	59.7	52.9	56.6
<b>OGI</b>												
DOUBLESTOP CL+	37.7	63.3	23.8	41.6	91.5	109.9	94.8	98.8	56.2	58.3	52.6	55.7
GREEN HAMMER	35.8	58.4	22.5	38.9	87.0	101.6	89.7	92.7	55.2	59.9	51.6	55.6
OK CORRAL	38.8	51.2	24.3	38.1	94.3	89.0	97.0	93.5	51.1	55.1	50.9	52.4
OK16103083	39.6	50.0	29.0	39.5	96.1	86.9	116.0	99.7	54.4	59.2	52.0	55.2
OK18510	31.7	62.7	23.1	39.2	76.9	109.0	92.4	92.8	54.8	60.0	52.1	55.6
PARADOX	41.1	52.8	16.0	36.6	99.8	91.7	64.0	85.2	52.8	58.7	51.0	54.2
SHOWDOWN	30.4	56.7	25.0	37.4	73.9	98.6	99.6	90.7	52.9	59.2	52.8	55.0
SMITH'S GOLD	41.1	58.2	22.7	40.7	99.9	101.2	90.6	97.2	54.6	60.2	51.0	55.2
STRAD CL+	41.1	49.4	28.9	39.8	99.8	85.9	115.3	100.3	55.3	59.3	53.1	55.9
<b>PLAINSGOLD</b>												
CANVAS	45.8	62.8	25.4	44.7	111.3	109.2	101.4	107.3	55.8	59.2	53.0	56.0
CRESCENT AX	42.6	66.0	30.1	46.2	103.5	114.7	120.0	112.7	57.6	59.7	55.3	57.6
KIVARI AX	53.0	59.0	29.5	47.2	128.7	102.6	117.8	116.4	55.4	58.7	52.5	55.5
WHISTLER	48.6	62.9	32.0	47.8	118.2	109.3	127.7	118.4	56.6	58.9	52.6	56.1
<b>POLANSKY</b>												
PARADISE	41.3	52.1	22.7	38.7	100.3	90.5	90.8	93.9	55.2	58.9	52.7	55.6
ROCKSTAR	46.4	55.8	27.9	43.4	112.8	96.9	111.4	107.0	54.7	57.9	53.2	55.2
<b>WESTBRED</b>												
WB4269	38.5	59.9	23.3	40.6	93.6	104.1	93.2	96.9	55.7	58.7	51.8	55.4
WB4401	40.2	60.2	21.5	40.7	97.7	104.7	85.9	96.1	54.2	59.8	51.2	55.0
WB4422	45.9	61.3	26.3	44.5	111.6	106.6	105.1	107.8	56.6	59.2	52.6	56.1
WB4523	42.7	53.6	28.3	41.5	103.8	93.1	113.1	103.3	55.2	57.5	52.3	55.0
WB4632	42.8	53.1	25.7	40.5	103.9	92.3	102.4	99.5	55.3	59.8	52.8	56.0
WB4699	40.7	53.3	25.2	39.7	99.0	92.7	100.5	97.4	54.3	58.3	52.3	54.9
AVERAGE	41.2	57.5	25.1	41.3	100.0	100.0	100.0	100.0	54.8	59.0	52.1	55.3
CV (%)	6.0	12.1	2.8	--	6.0	12.1	2.8	--	0.7	0.9	0.9	--
LSD (0.05)*	7.3	5.0	3.4	--	17.7	8.7	13.4	--	1.3	0.9	1.2	--

<sup>1</sup>NW=Newton, KS, farmer's field, Harvey County.

<sup>2</sup>HU=Hutchinson, KS, South Central Experiment Field, Reno County.

<sup>3</sup>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. 2023 SOUTH CENTRAL Kansas dryland winter wheat performance test

2021-2022 Season	Newton	Hutchinson	St. John
Date Planted	11/1/2022	10/22/2022	11/10/2022
Previous Crop	Wheat	Wheat	Wheat
Primary Tillage	No tillage	Conventional	Conventional
Irrigated	No	No	No
Date Harvested	7/21/2023	6/26/2023	7/12/2023
Seasonal precipitation (inches)	12.5	14.9	17.0
Normal precipitation (inches)	21.9	20.1	18.8

Brand / Name	-NW-		-HU-		-SJ-	
	2 yr	3 yr	2 yr	3 yr	2 yr	3 yr
<b>AGRIMAXX</b>			(bushels/acre)			
CARTWRIGHT	48.5	51.2	61.3	65.1	56.2	59.2
<b>AGRIPRO</b>						
AP BIGFOOT	44.0	52.2	65.8	71.4	53.7	63.2
AP EVERROCK	38.6	46.7	60.7	65.8	64.9	57.7
AP PROLIFIC	48.7	--	64.9	--	57.8	--
AP18 AX	50.5	57.3	58.2	67.6	55.9	61.0
BOB DOLE	44.6	51.2	60.6	69.2	61.5	60.3
SY WOLVERINE	55.6	58.7	64.4	71.3	59.3	64.8
<b>AGSECO</b>						
AG ICON	52.6	54.9	63.6	65.8	58.8	61.5
AG RADICAL	49.2	55.7	62.2	69.4	64.4	62.4
<b>CROPLAN</b>						
CP7017AX	47.6	50.1	67.6	72.4	58.5	63.4
CP7266AX	40.9	--	64.4	--	55.8	--
CP7909	52.2	57.1	64.6	71.2	69.8	64.3
<b>KWA</b>						
KS AHEARN	49.9	55.7	61.3	72.1	59.3	63.0
KS HATCHETT	48.7	54.2	57.4	66.8	56.8	59.5
KS PROVIDENCE	47.6	--	69.8	--	55.5	--
KS SILVERADO	48.2	49.8	61.2	63.0	60.3	58.0
KS WESTERN STAR	52.9	55.1	63.4	69.8	55.4	62.8
ZENDA	44.8	--	56.8	--	57.9	--
<b>LIMAGRAIN</b>						
LCS ATOMIC AX	49.9	55.4	55.6	67.2	54.3	59.4
LCS CHROME	55.8	57.8	62.8	68.0	59.6	62.9
LCS HELIX AX	44.3	50.1	60.8	67.2	55.0	59.4
LCS JULEP	51.9	53.5	62.2	67.7	58.1	61.1
LCS STEEL AX	53.5	--	70.7	--	56.7	--
LCS VALIANT	42.7	48.2	60.4	68.4	57.3	59.0
<b>MERIDIAN</b>						
MS MAVERICK	57.5	57.4	61.8	65.6	53.4	61.6
<b>OGI</b>						
DOUBLESTOP CL PLUS	45.8	50.4	59.6	66.1	61.8	58.7
GREEN HAMMER	43.2	--	58.1	--	67.0	--
OK CORRAL	48.7	53.9	59.5	66.9	64.6	60.1
SHOWDOWN	45.4	52.7	62.0	68.3	53.7	61.0
SMITH'S GOLD	47.6	50.7	59.1	64.9	59.9	58.2
STRAD CL PLUS	47.6	53.3	53.4	61.4	57.9	56.1
<b>PLAINSGOLD</b>						
CANVAS	51.4	54.0	68.1	71.9	67.0	64.7
CRESCENT AX	55.0	56.2	67.3	73.7	59.3	65.7
KIVARI AX	58.0	--	67.0	--	54.2	--
WHISTLER	54.9	58.7	70.6	74.3	57.5	67.9
<b>POLANSKY</b>						
PARADISE	46.9	50.9	56.4	65.2	53.7	57.5
ROCK STAR	50.4	54.6	65.3	71.1	59.9	63.6
<b>WESTBRED</b>						
WB4269	46.2	51.3	64.5	69.1	57.9	61.7
WB4401	51.9	57.0	62.2	72.2	59.6	63.8
WB4422	50.0	--	67.0	--	67.0	--
WB4523	51.8	--	59.3	--	59.3	--
WB4699	47.4	51.1	57.2	63.9	54.2	57.4
AVERAGE	48.7	52.9	62.2	68.0	57.5	61.0

**Table 8. 2023 SOUTH CENTRAL non-treated dryland winter wheat performance test**

Brand/ Name	WL <sup>1</sup>	WL	2 yr	3 yr	WL
	yield (bu/a)	% of test average	multiyear av. (bu/a)		test weight (lb/bu)
<b>AgriMAXX</b>					
Cartwright	30.6	118.0	32.9	46.5	55.5
<b>AGRIPRO</b>					
AP PROLIFIC	29.9	115.6	42.2	--	54.1
AP18 AX	23.5	90.6	39.2	50.1	52.2
BOB DOLE	25.9	100.1	39.6	49.8	54.1
<b>AGSECO</b>					
AG ICON	24.6	95.0	37.7	43.5	52.4
AG RADICAL	25.7	99.3	42.0	43.9	52.6
<b>ARMOR</b>					
EXP55	34.0	131.4	--	--	53.8
EXP65AX	21.0	81.2	--	--	52.0
<b>CROPLAN</b>					
CP7017AX	23.7	91.7	--	--	52.1
CP7050AX	21.3	82.4	--	--	53.1
CP7266AX	19.9	76.9	--	--	52.2
CP7869	30.2	116.7	--	--	52.5
CP7909	23.4	90.5	--	--	50.6
<b>KWA</b>					
KS AHEARN	29.5	114.0	35.5	41.2	53.5
KS HATCHETT	23.0	89.0	33.1	--	53.6
KS MAKO	25.3	97.5	--	--	52.5
KS PROVIDENCE	29.4	113.5	41.8	--	55.5
KS WESTERN STAR	27.2	105.1	34.6	38.0	53.9
ZENDA	22.4	86.3	34.8	41.7	53.3
<b>LIMAGRAIN</b>					
LCH19DH-152-6	26.3	101.7	--	--	53.6
LCS ATOMIC AX	27.1	104.7	38.0	50.2	55.4
LCS CHROME	27.4	106.0	38.7	45.6	53.1
LCS GALLOWAY AX	28.7	110.7	39.4	--	53.6
LCS HELIX AX	25.2	97.2	34.7	45.4	53.4
LCS JULEP	29.9	115.4	--	38.3	53.2
LCS STEEL AX	27.4	105.7	41.5	--	52.6
LCS VALIANT	23.6	91.1	37.0	46.0	52.2
<b>MERIDIAN</b>					
MS MAVERICK	31.5	121.8	42.1	47.5	51.8
<b>OGI</b>					
BIG COUNTRY	20.8	80.2	--	--	50.6
DOUBLESTOP CL+	29.2	112.9	40.3	51.9	54.0
GREEN HAMMER	28.1	108.6	40.2	51.4	54.2
OK CORRAL	23.4	90.3	31.0	40.2	50.2
OK18510	23.0	88.8	--	--	52.8
PARADOX	24.2	93.3	--	--	54.4
SHOWDOWN	26.8	103.4	42.7	47.7	55.3
SMITH'S GOLD	20.5	79.1	33.5	40.4	52.4
STRAD CL+	24.0	92.8	36.6	47.8	52.5
UNCHARTED	20.3	78.5	33.2	43.1	52.4
<b>PLAINSGOLD</b>					
GUARDIAN	28.4	109.7	41.1	--	53.1
<b>POLANSKY</b>					
PARADISE	27.0	104.5	41.2	51.8	54.0
ROCKSTAR	32.6	125.9	41.1	50.0	55.4
<b>WESTBRED</b>					
WB4269	25.2	97.4	--	41.5	52.6
WB4401	26.8	103.5	40.6	51.7	55.2
WB4422	25.5	98.6	36.6	--	54.5
WB4523	27.7	107.0	--	--	53.0

Table 8 continued. 2023 SOUTH CENTRAL non-treated dryland winter wheat performance test

Brand/ Name	WL <sup>1</sup>	WL	2 yr	3 yr	WL	2022-2023 Season	Wellington
WB4632	25.3	97.6	--	--	54.2	Date Planted	10/31/2022
WB4699	25.7	99.3	37.8	42.9	52.0	Previous Crop	Wheat
AVERAGE	25.9	100.0	37.5	44.7	53.1	Primary Tillage	Minimum
CV (%)	3.6	3.6	--	--	1.4	Irrigated	None
LSD (0.05)	3.4	13.0	--	--	1.3	Date Harvested	7/2/2023
						Seasonal precipitation (inches)	17.0
						Normal precipitation (inches)	23.7

<sup>1</sup>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.

Table 9. 2023 NORTHWEST Kansas dryland winter wheat performance test

Brand / Name	RS <sup>1</sup>	CO <sup>2</sup>	TR <sup>3</sup>	DC <sup>4</sup>	Av.	RS	CO	TR	DC	Av.	RS	CO	TR	DC	Av.	
	yield (bu/a)					% of test average					test weight (lb/bu)					
<b>AGRIPRO</b>																
AP BIGFOOT	21.0	49.7	39.4	--	36.7	61.6	91.1	117.2	--	90.0	55.0	53.0	59.8	--	56.0	
AP18 AX	31.2	50.8	36.0	--	39.3	91.5	93.1	107.2	--	97.3	54.5	50.8	55.6	--	53.6	
SY WOLVERINE	30.6	42.2	32.6	--	35.1	89.9	77.2	97.1	--	88.1	54.7	51.3	56.9	--	54.3	
<b>AGSECO</b>																
AG GOLDEN	44.0	56.5	30.7	--	43.7	129.2	103.4	91.3	--	108.0	55.4	48.9	53.5	--	52.6	
TAM 114	27.7	55.0	44.4	--	42.4	81.4	100.7	132.1	--	104.7	51.0	50.5	60.4	--	54.0	
<b>KWA</b>																
KS BIG BOW	31.6	58.2	44.3	--	44.7	92.9	106.6	131.9	--	110.5	56.5	49.5	60.6	--	55.5	
KS BILL SNYDER	26.5	57.1	42.8	--	42.2	77.9	104.6	127.5	--	103.3	51.0	49.6	59.4	--	53.3	
KS DALLAS	32.2	56.4	33.9	--	40.8	94.4	103.2	100.9	--	99.5	55.1	50.6	56.3	--	54.0	
KS HAMILTON	31.0	54.2	30.1	--	38.4	91.1	99.2	89.5	--	93.3	55.8	52.8	56.7	--	55.1	
KS MAKO	35.7	66.8	39.5	--	47.3	104.8	122.3	117.6	--	114.9	54.9	52.1	60.6	--	55.9	
KS PROVIDENCE	30.9	61.5	31.7	--	41.4	90.5	112.6	94.4	--	99.2	55.6	50.6	53.0	--	53.1	
KS TERRITORY	34.5	61.9	37.6	--	44.7	101.3	113.3	112.0	--	108.9	55.6	52.5	58.6	--	55.6	
KS WESTERN STAR	39.0	64.6	44.5	--	49.3	114.3	118.2	132.5	--	121.7	57.6	53.4	60.3	--	57.1	
TATANKA	29.9	61.9	29.9	--	40.6	87.7	113.4	89.0	--	96.7	57.3	53.7	53.9	--	55.0	
<b>LIMAGRAIN</b>																
LCH19DH-152-6	38.8	76.6	50.7	--	55.4	113.7	140.3	150.9	--	135.0	55.5	54.2	61.0	--	56.9	
LCS ATOMIC AX	31.7	61.1	33.1	--	42.0	93.1	111.9	98.4	--	101.1	56.7	52.7	57.1	--	55.5	
LCS GALLOWAY AX	34.5	44.8	29.3	--	36.2	101.1	82.0	87.1	--	90.1	55.5	49.4	54.0	--	53.0	
LCS HELIX AX	26.3	57.2	29.6	--	37.7	77.1	104.8	88.1	--	90.0	51.0	52.5	54.3	--	52.6	
LCS JULEP	37.0	46.7	29.8	--	37.8	108.6	85.6	88.6	--	94.3	55.5	49.6	56.8	--	53.9	
LCS STEEL AX	50.4	45.1	24.9	--	40.2	148.0	82.6	74.2	--	101.6	55.6	46.6	53.8	--	52.0	
<b>MERIDIAN</b>																
MS MAVERICK	39.7	57.3	33.7	--	43.6	116.6	105.0	100.3	--	107.3	55.9	50.5	55.4	--	53.9	
<b>OGI</b>																
BREAKTHROUGH	19.9	46.9	24.5	--	30.4	58.3	85.9	72.8	--	72.3	51.0	50.9	51.5	--	51.2	
<b>PLAINSGOLD</b>																
CANVAS	42.5	52.7	29.1	--	41.4	124.8	96.4	86.6	--	102.6	57.1	51.9	52.7	--	53.9	
CRESCENT AX	25.2	51.1	37.0	--	37.8	74.0	93.6	110.0	--	92.5	51.0	51.5	58.1	--	53.5	
GUARDIAN	43.4	59.4	28.8	--	43.9	127.5	108.8	85.9	--	107.4	57.6	53.5	58.2	--	56.4	
KIVARI AX	43.9	48.8	25.4	--	39.4	128.8	89.4	75.7	--	98.0	56.2	47.8	53.8	--	52.6	
LANGIN	22.5	49.4	31.7	--	34.5	66.0	90.5	94.3	--	83.6	51.0	48.2	55.5	--	51.6	
WHISTLER	56.6	54.8	25.7	--	45.7	166.2	100.3	76.4	--	114.3	56.0	49.9	56.1	--	54.0	
<b>POLANSKY</b>																
HIGH COUNTRY	31.9	60.3	36.3	--	42.9	93.7	110.5	108.1	--	104.1	56.1	54.6	61.2	--	57.3	
ROCKSTAR	36.1	64.7	45.2	--	48.7	106.0	118.5	134.6	--	119.7	55.0	51.6	57.2	--	54.6	
<b>WESTBRED</b>																
WB4422	34.4	48.9	35.2	--	39.5	100.9	89.6	104.8	--	98.4	56.0	49.5	52.5	--	52.7	
WB4595	31.5	56.9	32.4	--	40.3	92.4	104.1	96.5	--	97.7	56.8	52.7	54.2	--	54.5	
WB4792	28.1	47.5	24.7	--	33.4	82.5	87.1	73.4	--	81.0	57.4	49.8	53.0	--	53.4	
AVERAGE	34.1	54.6	33.6	--	40.8	100.0	100.0	100.0	--	100.0	55.0	51.0	56.4	--	54.1	
CV (%)	4.3	4.5	4.2	--	--	4.3	4.5	4.2	--	--	0.4	1.1	1.7	--	--	
LSD (0.05)	7.9	8.1	7.1	--	--	23.1	14.8	21.2	--	--	2.0	2.0	2.8	--	--	

<sup>1</sup>RS=Russell, KS, farmer's field, Russell County.

<sup>2</sup>CO=Colby, KS, Northwest Agricultural Research Center, Thomas County.

<sup>3</sup>TR=Tribune, KS, Southwest Agricultural Research Center, Greeley County.

<sup>4</sup>DC=Decatur, KS, farmer's field, Decatur County. *Abandoned: drought and winterkill.*

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

2022-2023 Season	Russell	Colby	Tribune	Decatur
Date Planted	10/4/2022	10/25/2022	10/8/2022	Abnd.
Previous Crop	Wheat	Sorghum	Sorghum	Wheat
Primary Tillage	No tillage	Minimum	No tillage	No tillage
Irrigated	No	No	No	No
Date Harvested	7/16/2023	7/26/2023	7/20/2023	--
Seasonal precipitation (inches)	9.9	17.0	14.6	12.0
Normal precipitation (inches)	15.6	15.9	13.6	16.9



**Table 9 continued. NORTHWEST multi-year averages (2021-2023)**

Brand / Name	-RS-		-CO-		-TR-	-DC-
	2 yr	3 yr	2 yr	3 yr	3 yr	2021
	(bushels/acre)					
<b>AGRIPRO</b>						
AP BIGFOOT	45.7	56.1	45.7	50.9	55.2	87.0
AP18 AX	55.8	--	55.8	--	--	--
SY WOLVERINE	55.1	59.5	55.1	57.3	61.5	88.4
<b>AGSECO</b>						
AG GOLDEN	58.4	66.9	58.4	62.7	60.9	99.2
TAM 114	49.7	59.2	49.7	54.5	65.1	99.5
<b>KWA</b>						
KS DALLAS	50.4	60.7	50.4	55.5	65.1	101.3
KS HAMILTON	47.0	58.5	47.0	52.7	53.3	86.1
KS PROVIDENCE	51.9	--	51.9	--	--	--
KS TERRITORY	55.6	--	55.6	--	--	--
KS WESTERN STAR	52.0	64.3	52.0	58.2	67.0	99.0
TATANKA	50.8	66.9	50.8	58.8	58.8	90.8
<b>LIMAGRAIN</b>						
LCS ATOMIC AX	53.4	68.8	53.4	61.1	57.1	93.0
LCS HELIX AX	48.7	66.2	48.7	57.5	51.4	85.5
LCS JULEP	59.2	60.5	59.2	59.8	48.7	89.1
LCS STEEL AX	62.6	--	62.6	--	--	--
<b>MERIDIAN</b>						
MS MAVERICK	57.4	64.9	57.4	61.2	61.4	88.9
<b>PLAINSGOLD</b>						
CANVAS	58.0	69.3	58.0	63.6	50.8	92.1
CRESCENT AX	47.9	--	47.9	--	--	--
GUARDIAN	61.3	70.5	61.3	65.9	52.3	97.7
WHISTLER	67.5	72.7	67.5	70.1	51.0	95.4
<b>POLANSKY</b>						
HIGH COUNTRY	48.9	58.3	48.9	53.6	59.7	88.4
ROCKSTAR	54.5	69.6	54.5	62.0	64.6	89.3
<b>WESTBRED</b>						
WB4422	59.9	--	59.9	--	--	--
WB4595	50.5	66.7	50.5	58.6	52.2	93.7
WB4792	44.3	60.4	44.3	52.3	48.6	96.4
AVERAGE	53.3	64.8	53.3	59.1	56.6	91.6

Table 10. 2023 SOUTHWEST Kansas dryland winter wheat performance test

Brand / Name	LA <sup>1</sup>	HG <sup>2</sup>	GC <sup>3</sup>	LA	HG	GC
	yield (bu/a)			% of test average		
<b>AgriMAXX</b>						
AM Cartwright	39.4	--	--	89.4	--	--
<b>AgriPro</b>						
AP 18AX	44.0	--	--	99.9	--	--
AP Bigfoot	43.4	--	--	98.5	--	--
SY Wolverine	45.3	--	--	102.8	--	--
<b>AGSECO</b>						
AG Golden	47.6	--	--	108.0	--	--
<b>KWA</b>						
(W) Joe	37.7	--	--	85.5	--	--
KS BIG BOW	38.5	--	--	87.3	--	--
KS BILL SNYDER	42.1	--	--	95.6	--	--
KS Dallas	50.4	--	--	114.3	--	--
KS Hamilton	45.1	--	--	102.4	--	--
KS Silverado	38.5	--	--	87.3	--	--
KS TERRITORY	45.7	--	--	103.8	--	--
KS Western Star	43.9	--	--	99.6	--	--
Tatanka	44.1	--	--	100.2	--	--
<b>Limagrain</b>						
LCH19DH-152-6	39.8	--	--	90.3	--	--
LCS Atomic AX	50.1	--	--	113.8	--	--
LCS Galloway AX	39.1	--	--	88.7	--	--
LCS Helix AX	45.8	--	--	104.0	--	--
LCS Julep	41.4	--	--	94.1	--	--
LCS Steel AX	41.5	--	--	94.2	--	--
LCS White Lightning	43.8	--	--	99.5	--	--
<b>Meridian</b>						
MS Maverick	44.5	--	--	101.0	--	--
<b>OGI</b>						
Bentley	48.8	--	--	110.9	--	--
Breakthrough	39.0	--	--	88.6	--	--
OK Corral	43.2	--	--	98.0	--	--
OK18510	45.5	--	--	103.3	--	--
Showdown	47.9	--	--	108.7	--	--
<b>PlainsGold</b>						
Guardian	49.3	--	--	112.0	--	--
Langin	41.1	--	--	93.3	--	--
Whistler	46.3	--	--	105.1	--	--
<b>Polansky</b>						
High Country	45.3	--	--	102.8	--	--
Rock Star	56.7	--	--	128.8	--	--
<b>Watley</b>						
TAM 112	42.8	--	--	97.3	--	--
TAM 115	41.1	--	--	93.2	--	--
TAM 204	49.2	--	--	111.6	--	--
<b>WestBred</b>						
WB4422	45.4	--	--	103.0	--	--
WB4595	40.9	--	--	92.8	--	--
WB4792	37.8	--	--	85.9	--	--
AVERAGE	44.0	--	--	100.0	--	--
CV (%)	6.4	--	--	6.4	--	--
LSD (0.05)*	4.1	--	--	9.2	--	--

<sup>1</sup>LA=Larned, KS, farmer's Field, Pawnee County.

<sup>2</sup>HG=Hugoton, KS, farmer's Field, Stevens County. *Abandoned: did not emerge.*

<sup>3</sup>GC=Garden City, KS, Southwest Agricultural Research Center, Finney County. *Abandoned: did not emerge.*

<sup>4</sup>(W) indicates hard white wheat.

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

**Table 10 continued. 2023 SOUTHWEST Kansas dryland winter wheat performance test**

2022-2023 Season	Larned	Hugoton	Garden City
Date Planted	10/5/2022	9/28/2022	9/28/2022
Previous Crop	Summer Fallow	Corn Fallow	Corn Fallow
Primary Tillage	Minimum	Minimum	Minimum
Irrigated	No	No	No
Date Harvested	7/13/2023	Abnd.	Abnd.
Seasonal precipitation (inches)	17.0	14.8	14.5
Normal precipitation (inches)	18.8	14.7	13.5

**SOUTHWEST multi-year averages (2021-2023)**

Brand / Name	-LA-		-HG-		-GC-	
	2 yr	3 yr	2022	2021	2022	2021
	multiyear av. (bu/a)		(bushels/acre)			
<b>AGRIMAXX</b>						
CARTWRIGHT	42.1	57.8	--	99.5	77.2	98.2
<b>AGRIPRO</b>						
AP BIGFOOT	46.2	61.8	--	90.2	71.5	113.7
AP 18AX	44.5	--	--	--	77.0	--
SY WOLVERINE	50.2	71.9	--	105.6	86.0	100.2
<b>AGSECO</b>						
AG GOLDEN	49.6	66.8	--	101.1	83.8	101.9
<b>KWA</b>						
(W) JOE	42.4	66.2	--	96.6	70.9	10.1
KS BIG BOW	45.1	--	--	--	79.8	--
KS DALLAS	49.7	64.6	--	97.2	82.1	90.1
KS HAMILTON	46.7	66.8	--	109.3	76.7	100.9
KS TERRITORY	47.6	--	--	--	59.6	--
TATANKA	47.1	62.2	--	94.8	71.0	94.2
<b>LIMAGRAIN</b>						
LCS ATOMIC AX	51.3	73.0	--	97.4	73.8	102.7
LCS HELIX AX	47.6	65.6	--	109.6	84.4	97.7
LCS JULEP	44.3	61.2	--	101.8	75.5	91.3
LCS STEEL	47.7	--	--	--	87.8	--
<b>MERIDIAN</b>						
MS MAVERICK	46.9	63.5	--	99.6	77.5	93.5
<b>OGI</b>						
BREAKTHROUGH	38.7	57.4	--	89.5	65.2	104.1
OK CORRAL	44.5	60.7	--	109.5	59.2	88.4
SHOWDOWN	44.5	63.1	--	100.2	75.5	99.6
<b>PLAINSGOLD</b>						
GUARDIAN	48.6	68.0	--	107.2	89.8	91.5
WHISTLER	50.8	73.8	--	108.5	93.8	108.4
<b>POLANSKY</b>						
HIGH COUNTRY	50.8	66.0	--	84.5	85.7	105.7
ROCK STAR	51.5	65.6	--	106.5	78.7	106.7
<b>WATLEY</b>						
TAM 112	47.1	--	--	--	74.7	--
TAM 115	45.3	--	--	--	71.6	--
TAM 204	46.5	--	--	--	66.5	--
<b>WESTBRED</b>						
WB4422	46.7	--	--	--	87.8	--
WB4595	44.4	62.7	--	93.7	75.1	84.3
WB4792	43.2	63.7	--	109.1	79.2	94.9
AVERAGE	45.9	62.9	--	100.1	76.0	98.8

Table 11. 2023 WESTERN Kansas irrigated winter wheat performance test

Brand / Name	CO <sup>1</sup>	GC <sup>2</sup>	HG <sup>3</sup>	Av.	CO	GC	HG	Av.	CO	GC	HG	Av.
	yield (bu/a)				% of test average				tw (lb/bu)			
<b>AGRIPRO</b>												
AP EverRock	--	67.5	--	67.5	--	92.4	--	92.4	--	55.6	--	55.6
AP PROLIFIC	--	83.7	--	83.7	--	114.7	--	114.7	--	57.6	--	57.6
SY WOLVERINE	--	78.1	--	78.1	--	107.0	--	107.0	--	53.0	--	53.0
<b>AGSECO</b>												
AG GOLDEN	--	75.6	--	75.6	--	103.5	--	103.5	--	53.6	--	53.6
<b>KWA</b>												
KS BIG BOW	--	79.1	--	79.1	--	108.4	--	108.4	--	56.0	--	56.0
KS BILL SNYDER	--	74.5	--	74.5	--	102.1	--	102.1	--	56.5	--	56.5
KS MAKO	--	68.3	--	68.3	--	93.6	--	93.6	--	57.7	--	57.7
KS PROVIDENCE	--	84.7	--	84.7	--	116.1	--	116.1	--	57.0	--	57.0
KS SILVERADO	--	73.1	--	73.1	--	100.2	--	100.2	--	55.7	--	55.7
KS TERRITORY	--	80.3	--	80.3	--	110.1	--	110.1	--	57.2	--	57.2
<b>LIMAGRAIN</b>												
LCH19DH-152-6	--	86.3	--	86.3	--	118.2	--	118.2	--	57.3	--	57.3
LCS ATOMIC AX	--	82.7	--	82.7	--	113.3	--	113.3	--	57.4	--	57.4
LCS GALLOWAY AX	--	71.4	--	71.4	--	97.8	--	97.8	--	56.7	--	56.7
LCS HELIX AX	--	74.7	--	74.7	--	102.3	--	102.3	--	56.9	--	56.9
LCS JULEP	--	68.4	--	68.4	--	93.8	--	93.8	--	56.6	--	56.6
LCS STEEL AX	--	76.8	--	76.8	--	105.2	--	105.2	--	54.9	--	54.9
LCS WHITE LIGHTNING	--	68.2	--	68.2	--	93.5	--	93.5	--	56.3	--	56.3
<b>OGI</b>												
BREAKTHROUGH	--	65.7	--	65.7	--	90.1	--	90.1	--	56.7	--	56.7
OK CORRAL	--	64.0	--	64.0	--	87.7	--	87.7	--	53.8	--	53.8
OK18510	--	78.1	--	78.1	--	107.1	--	107.1	--	57.5	--	57.5
<b>PLAINSGOLD</b>												
CANVAS	--	73.7	--	73.7	--	100.9	--	100.9	--	55.0	--	55.0
<b>POLANSKY</b>												
HIGH COUNTRY	--	73.0	--	73.0	--	100.0	--	100.0	--	56.9	--	56.9
ROCKSTAR	--	76.2	--	76.2	--	104.5	--	104.5	--	54.8	--	54.8
<b>WATLEY</b>												
TAM 112	--	64.6	--	64.6	--	88.5	--	88.5	--	55.2	--	55.2
TAM 115	--	63.6	--	63.6	--	87.1	--	87.1	--	57.5	--	57.5
TAM 204	--	62.6	--	62.6	--	85.8	--	85.8	--	52.9	--	52.9
<b>WESTBRED</b>												
WB4422	--	72.1	--	72.1	--	98.9	--	98.9	--	55.0	--	55.0
WB4523	--	74.5	--	74.5	--	102.1	--	102.1	--	55.0	--	55.0
WB4595	--	74.4	--	74.4	--	102.0	--	102.0	--	56.1	--	56.1
WB4699	--	75.6	--	75.6	--	103.6	--	103.6	--	56.2	--	56.2
WB4792	--	58.0	--	58.0	--	79.5	--	79.5	--	52.8	--	52.8
AVERAGE	--	73.0	--	73.0	--	100.0	--	100.0	--	55.7	--	55.7
CV (%)	--	7.4	--	--	--	7.4	--	--	--	1.0	--	--
LSD (0.05)*	--	9.9	--	--	--	9.4	--	--	--	1.7	--	--

<sup>1</sup>CO=Colby, KS, Northwest Agricultural Research Center, Thomas County. *Abandoned: poor stand establishment and hailstorm.*

<sup>2</sup>GC=Garden City, KS, Southwest Agricultural Research Center, Finney County.

<sup>3</sup>HG=Hugoton, KS, farmer's field, Stevens County. *Abandoned: hailstorm.*

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

**Table 11 continued. 2023 WESTERN Kansas irrigated winter wheat performance test**

<b>2022-2023 Season</b>	<b>Colby</b>	<b>Garden City</b>	<b>Hugoton</b>
Date Planted	10/25/2022	10/13/2022	10/14/2022
Previous Crop	Corn Fallow	Corn Fallow	Corn Fallow
Primary Tillage	Minimum	Conventional	Minimum
Irrigated	Pivot	Pivot	Pivot
Date Harvested	Abnd.	7/13/2023	Abnd.
Seasonal precipitation (inches)	17.0	14.5	14.8
Normal precipitation (inches)	15.9	13.5	14.7

**WESTERN irrigated multi-year averages (2021-2023)**

<b>Brand / Name</b>	<b>-CO-</b>		<b>-GC-</b>	<b>-HG-</b>	
	<b>2022</b>	<b>2021</b>	<b>3 yr</b>	<b>2022</b>	<b>2021</b>
	(bushels/acre)				
<b>AGRIPRO</b>					
AP EverRock	--	116.6	80.1	--	140.5
AP PROLIFIC	58.8	--	--	110.3	--
SY WOLVERINE	68.3	125.5	93.9	115.7	133.2
<b>AGSECO</b>					
AG GOLDEN	57.3	127.1	88.1	118.6	133.5
<b>KWA</b>					
KS PROVIDENCE	57.4	--	--	103.8	--
KS SILVERADO	--	117.1	110.1	--	147.0
<b>LIMAGRAIN</b>					
LCS ATOMIC AX	76.1	118.7	87.8	96.7	128.8
LCS HELIX AX	68.3	118.2	89.5	129.0	135.7
LCS JULEP	54.4	121.7	89.0	111.3	142.7
LCS STEEL AX	54.7	--	--	--	--
<b>OGI</b>					
BREAKTHROUGH	60.9	112.2	77.1	111.1	131.3
<b>PLAINSGOLD</b>					
CANVAS	61.4	115.4	91.3	128.4	141.6
<b>POLANSKY</b>					
HIGH COUNTRY	69.4	117.8	77.8	116.5	127.1
ROCKSTAR	52.6	109.7	90.6	117.7	141.4
<b>WATLEY</b>					
TAM 112	59.6	--	--	116.7	--
TAM 115	55.4	--	--	106.8	--
TAM 204	53.9	--	--	95.0	--
<b>WESTBRED</b>					
WB4422	66.2	--	--	118.0	--
WB4595	64.8	123.6	91.3	115.8	143.2
WB4699	68.5	129.2	92.3	102.4	133.0
<b>AVERAGE</b>	<b>59.9</b>	<b>116.6</b>	<b>86.6</b>	<b>108.8</b>	<b>135.0</b>

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Permission is hereby given to Kansas State University (KSU) to test varieties and/or hybrids designated on the attached entry forms in the manner indicated in the test announcements. I certify that seed submitted for testing is a true sample of the seed being offered for sale.

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