

CONTENTS

| | | |
|---|----------------|----|
| 2024 WHEAT CROP REVIEW | 1 | |
| Weather and Crop Development, Diseases, and Insects, Harvest Statistics | | |
| 2024 PERFORMANCE TESTS | 3 | |
| Varieties, Results and Variety Characterization, Electronic Access, Research and Duplication Policy, and Contributors | | |
| Entrants | Table 1 | 5 |
| Comparisons of Leading Winter Wheat Varieties | Table 2..... | 6 |
| North Central Dryland Tests | Table 3 | 7 |
| Southeast Dryland Tests | Table 4 | 9 |
| Soft Dryland Test | Table 5 | 10 |
| East Central Dryland Tests | Table 6 | 11 |
| South Central Dryland Tests | Table 7 | 13 |
| South Central Non-treated Dryland Test | Table 8 | 15 |
| West Central Dryland Tests | Table 9 | 16 |
| Western Dryland Tests | Table 10 | 18 |
| Western Irrigated Tests | Table 11..... | 20 |

2024 WHEAT CROP REVIEW

Weather and Crop Development

Fall growing conditions

The 2023-24 winter wheat crop in Kansas had, overall, a great start to the growing season – with the exception of some areas around Hays and in the far northwest portion of the state. During September, the wheat growing areas of the state received anywhere from zero (in the two areas above) to as much as 3.25 inches of precipitation. This triggered much of western Kansas wheat to be sown, even though some of it was toward the early portion of the optimum sowing window (i.e., early- to mid-September).

These rainfalls coupled with timely sowing resulted in what was likely the best-looking fall emerged wheat crop in southwest Kansas during the last three to four years. Subsequently, most of the state received decent rain showers between October and November as well. Overall, the wheat growing region of the state received from ~0.25 to 6.50 inches of precipitation during the period from September 1 to November 30, 2023, resulting in excellent emergence and crop establishment in the fall across the state.

It is important to note, however, that the 2023-24 season occurred after three consecutive years of La Nina, which depleted subsoil moisture for the majority of the state. Thus, the crop was more dependent than usual on in-season rainfall due to primarily moisture-depleted subsoils. The fall was also relatively warm, with departure from normal temperatures during September to November ranging from +1 to +5 degrees Fahrenheit. These conditions were conducive for large amounts of biomass production by the wheat crop that emerged on time. Some wheat fields showed as much as ~2,000 pounds of dry matter production per acre in late November, whereas it has not been unusual to see ~500 pounds of dry matter per acre in the past few years that were less conducive for stand establishment and crop growth.

These conditions had a few major implications: first, the crop was in a good shape going into the winter, potentially prepared for harsher weather due to decent fall development. Second, the larger crop also demanded more water, likely using the majority of whatever water was available in the fall. For many fields in the Hays area and far northwest, which missed the September precipitation events, emergence did not occur until sometime in the winter, so the above implications did not apply. This crop had very variable stands due to the late emergence, which persisted through the growing season.

Winter growing conditions

With few exceptions, the winter was overall warmer than normal, with about average moisture (though with localized dry/wet patterns within the state) and a few large snowfall events. Departure from normal temperature during January to March ranged from zero to about +5 degrees Fahrenheit, and departure from normal precipitation ranged from –3 inches in parts of south central/southwest Kansas to +2.25 inches in parts of northwest Kansas. During an entire week in mid-January 2024, temperatures dropped to near -20 degrees Fahrenheit, which could have been conducive to winterkill except for the snowfall of up to 10 inches that accompanied the cold spell. Overall, winter conditions were still promising for a decent crop, although they continued to promote above average crop growth.

Early spring growing conditions

Warmer than average temperatures continued to be the norm during early spring, however drought conditions started to establish across the wheat growing region of the state (central and western Kansas). The period from February 1 to April 30 was +2 to +8 degrees Fahrenheit above normal, with departure from normal precipitation ranging from -6 to zero inches for the majority of the state (with exception of a limited region of northwest Kansas around Phillips and Norton counties that received up to +1.5 to +3 inches of precipitation compared to normal). This dry spring had a few major consequences to the wheat crop: First, this is the time of the year when many growers are applying nitrogen and sulfur fertilizers, which need moisture to leach into the root zone and be absorbed by the crop. The dry conditions were not conducive for proper fertilizer incorporation into the soil, thus making it likely unavailable for crop uptake in large portions of the state. Second, due to warmer than average temperatures, the crop spring development started relatively early (mid-March in south central Kansas, as compared to some years in which it does not start until as late as the first ten days in April). Third, the dry conditions made the crop more prone to spring freeze damage, since dry soils do not have the same buffer capacity against temperature changes as wet soils. During the last week of March, the air temperatures dropped into the lower teens across the state, being sustained below 24 degrees Fahrenheit for as many as 16 hours. The wheat crop was well past the jointing stages of development in parts of south central and southwest Kansas, stages that are more sensitive to cold temperatures. This resulted in winterkill of many tillers due to cold damage, also impairing the crop's yield potential across the

state, especially in the region around Saline County and south to McPherson and Reno counties.

In general, the warmer than average coupled with dry conditions persisted through most of the month of May. However, there were a few scattered and spotty rainfall events during May that resulted in fields with good yield potential.

The combination of large biomass production in the fall and winter, with severely dry and warm spring conditions and a freeze event late March, with some scattered spring rainfall events resulted in extremely variable wheat conditions across the majority of the state.

The large fall biomass production required those particular fields to use more water during the unproductive vegetative stages of growth, running out of water during the subsequent dry spring. These fields became variable and wavy, with drought-stricken portions near the better, lower parts of the field that accumulated more water. Symptoms of extreme drought stress in these fields included extremely reduced plant height and biomass, and a delayed development that accelerated through the flowering period due to day length.

These fields were common in the southwest portion of the state, in the region from about Ness County south and west, as far east as the Stafford to Barber county lines. Beyond within-field variability in this region, there was very large field-to-field variability depending upon rainfall availability. For instance, it was common to have very low, estimated 20-bushel per acre fields just a few miles away from fields that could average 80 bushels per acre or more in mid-May. We usually see large differences due to cropping systems, especially in dry seasons where previous crop and cropping intensity can cause large differences on the yield potential of the wheat crop. Due to the spotty nature of the rainfall in the season, growers reported that crop status was considerably more related to rainfall distribution than to cropping systems. At times, continuous cropped fields performed better than fallow ground if the continuous cropping happened to receive some rain that the fallow ground did not.

Grain filling period

Starting during mid-May through early June, the departure from average precipitation became positive and the departure from average temperature became negative. A total of up to 6.5 inches of precipitation accumulated in this period, and temperatures were as many as 1 degree Fahrenheit below average. Combined, precipitation and temperature regimes were nearly ideal for grain yield development, ensuring some grain production and good test weight despite an already limited yield potential due to the spring drought. With grain filling period happening under predominantly cool and wet conditions, most growers were able to harvest an average crop with good

test weight. For some growers in parts of Norton and Phillips counties, yields were very high since that part of the state received some more rainfall events than other parts of the state. (Romulo Lollato, Kansas State University Extension Wheat Specialist and Chip Redmond, Kansas State University Mesonet Manager)

Diseases

All three rusts (stripe rust, leaf rust, and stem rust) were active in the 2023-24 wheat crop with severe stripe rust observed in areas that received rainfall in early May. Conditions in Texas were favorable for stripe rust overwintering in the fall and high levels of stripe rust were confirmed in Texas in January and in Oklahoma in February. Stripe rust was confirmed in Sumner County, Kansas on April 9 and in subsequent counties in the weeks following, but generally stayed at low levels through April. May rainfall brought on more severe stripe rust in parts of the state. Leaf rust came on later in the season and was most severe in south-central counties. Stem rust was active in the state earlier than usual with higher-than-normal levels of this disease on susceptible varieties. Again, rust pressure was highly variable between fields due to variability in moisture patterns.

Wheat streak mosaic virus was widespread across the state, with high prevalence in the norther tier of counties. Interestingly, the virus was active at high levels again in the central corridor of the state with pockets of severe infection. Several fields tested positive for Triticum mosaic virus (TriMV) which appears to be increasing in prevalence. This is important, because the resistance genes that work against wheat streak mosaic virus are not effective against TriMV. WSMV, TriMV, and several other wheat viruses are vectored by the wheat curl mite (see note below in the Insects section about wheat curl mite abundance).

Notable levels of dryland foot rot/Fusarium foot rot were observed through south central Kansas. This disease can be easily confused with drought damage as it results in complete tiller death leading to white tillers. (Kelsey Andersen Onofre, Department of Plant Pathology, Kansas State University)

Insects

Fortunately, wheat pests did not cause widespread problems to the 2023-2024 wheat crop. However, there were areas that did have problems. Army cutworm moths were noted depositing eggs in wheat fields in the fall of 2023. These eggs hatched, and the larvae started feeding in late fall 2023, and continued through the winter and early spring 2024. This larval leaf feeding, plus dry conditions in many areas of the state, caused the loss of many acres of wheat.

Another pest that seems to be on the increase across the state is wheat curl mites, which often vector some of the viruses that cause wheat streak mosaic disease. These mite populations can be reduced by controlling volunteer wheat. This is easily said but not always easily accomplished. But we are noting increases of wheat curl mites and Hessian flies, especially in the western third of Kansas. (Jeff Whitworth, Kansas State University Department of Entomology)

Harvest Statistics

The Kansas Agricultural Statistics' July estimate of the 2024 crop was 307 million bushels from 7.15 million acres, up 53% from last year's crop. Yield per harvested acre is expected to average 43 bushels per acre, up 8 bushels from last year's final yield. (July 2024, *Crops Report*, Kansas Agricultural Statistics)

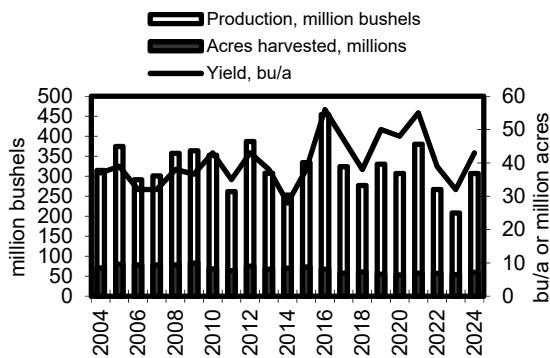


Figure 1. Historical Kansas wheat production

SY Monument remained the top-seeded variety in Kansas for the fifth consecutive year, accounting for 4.4% of the state's planted acres. Winterhawk moved into the second position with 4.2%. Bob Dole tied WB Grainfield for third with 3.4%. SY Wolverine rounded out the top 5 with 3.1% of the seeded acreage in Kansas. (March 2024, *Wheat Variety*, Kansas Agricultural Statistics)

| | | |
|-------------------|------------------------|------------------------|
| TAM 114 6.0 | SY Monument 7.6 | Rock Star 6.5 |
| SY Wolverine 5.9 | WB Grainfield 7.1 | KS Venada (D) |
| WB Grainfield 5.5 | Winterhawk 3.6 | LCS Chrome (D) |
| Byrd 4.7 | Bob Dole 3.1 | TAM 111 (D) |
| KS Dallas 4.7 | WB 4422 2.8 | Zenda (D) |
| Canvas 11.4 | SY Monument 11.2 | WB 4515 9.3 |
| Langin 9.6 | Rock Star 6.8 | Bob Dole 8.4 |
| Joe+ 7.9 | Bob Dole 5.9 | Zenda 4.4 |
| T158 7.1 | WB Grainfield 3.9 | Everest 3.6 |
| WB Grainfield 4.6 | WB 4699 3.0 | Pioneer 26R61 (D) |
| Winterhawk 14.2 | Bob Dole 8.6 | Everest 6.5 |
| Joe+ 8.4 | Doublestop CL Plus 5.4 | Zenda 5.5 |
| SY Wolverine 5.1 | Zenda 5.4 | WB4401 5.4 |
| WB Grainfield 4.0 | SY Monument 4.7 | WB4515 3.1 |
| WB 4792 3.4 | Smith's Gold 3.4 | Doublestop CL Plus (D) |

Figure 2. Leading wheat varieties in Kansas; percentage of seeded acreage for 2024 crop

2024 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.

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 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 2024 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

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 1186 '2024 Kansas Performance Tests with Winter Wheat Varieties,' or the Kansas Crop Performance Test website, agronomy.k-state.edu/outreach-and-services/crop-performance-tests for details. Endorsement or recommendation by Kansas State University is not implied."

Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

Copyright 2024 Kansas State University Agricultural Experiment Station and Cooperative Extension Service. Contents of this publication may be freely reproduced for educational purposes. All other rights reserved. In each case, give credit to the author(s), 2024 Kansas Performance Tests with Winter Wheat Varieties, Kansas State University, August 2024. Contribution number 25-030-S from the Kansas Agricultural Experiment Station.

CONTRIBUTORS

Main Station, Manhattan

Jane Lingenfelser, assistant agronomist
Kelsey Andersen Onofre, Extension Plant Pathology
Romulo Lollato, Extension Agronomy
Chip Redmond, Kansas Weather Data Library
Jeff Whitworth, Extension Entomology

Experiment Fields

Eric Adee, Ottawa
Scott Dooley, Scandia
Darren Hibdon, Ottawa
Michael Larson, Scandia
Keith Thompson, Hutchinson

Research Centers

Garth Blackburn, Parsons
Amanda Burnett, Tribune
Lucas Haag, Colby
Gretchen Sassenrath, Parsons

Cooperators

Mike and Tanner Brown, Colby
Marty Fletchall, Beloit
Gayle and Denton Haag, Decatur
Brian Yutzy, Hutchinson

Table 1. Entrants in the 2024 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

ARMOR/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

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 2024 | Agronomic Ratings ² | | | Relative milling and quality ³ | Resistance or tolerance to: ² | | | | | | | | | | | |
|----------------------|------------------------|--------------------------------|----------|--------|---|--|----------------|--------------|--------------|-----------|-----------|-------------|----------------|----------|-------------|-----------|---------|
| | | Straw strength | Maturity | Height | | Septoria | | | | | | | | | | | |
| | | | | | | Soil-mosaic | Spindle mosaic | Wheat mosaic | Barley dwarf | Leaf rust | Stem rust | Stripe rust | tritici blotch | Tan spot | Powd-mildew | Head scab | Hes-fly |
| SY Monument | 4.4 | 5 | 8 | 6 | AC | 1 | 1 | 7 | 6 | 4 | 5 | 5 | 4 | 5 | 5 | 7 | 7 |
| Winterhawk | 4.2 | 5 | 5 | 8 | AC | 1 | 1 | 7 | 5 | 7 | 6 | 6 | 7 | 6 | 6 | 7 | 3 |
| Bob Dole | 3.4 | 5 | 5 | 8 | EX | 1 | -- | 8 | 7 | 1 | 1 | 1 | 3 | 3 | 5 | 5 | 9 |
| WB Grainfield | 3.4 | 3 | 6 | 7 | AC | 1 | 1 | 8 | 7 | 6 | 7 | 7 | 6 | 6 | 6 | 7 | 8 |
| SY Wolverine | 3.1 | 1 | 3 | 3 | AC | 1 | -- | 5 | 5 | 4 | 1 | 7 | 4 | 4 | 3 | 9 | 9 |
| Joe+ | 2.8 | 2 | 7 | 7 | AC | 8 | 8 | 6 | 7 | 7 | 3 | 8 | 3 | 8 | 5 | 7 | 2 |
| Langin | 2.2 | 6 | 5 | 3 | EX | 1 | 1 | 7 | -- | 7 | 8 | 3 | 7 | 8 | 7 | 8 | 8 |
| Canvas | 2.1 | 1 | 5 | 3 | EX | 5 | -- | 1 | -- | 7 | 1 | 1 | -- | -- | -- | -- | -- |
| TAM 114 | 2.1 | 4 | 6 | 6 | EX | 8 | 8 | 7 | 6 | 4 | 7 | 3 | 5 | 7 | 5 | 7 | 7 |
| Zenda | 2.1 | 2 | 4 | 6 | AC | 1 | 1 | 7 | 5 | 3 | 4 | 4 | 4 | 5 | 5 | 4 | 5 |
| T158 | 1.8 | 1 | 3 | 5 | AC | 2 | 2 | 5 | 5 | 8 | 8 | 3 | 7 | 4 | 2 | 8 | 4 |
| Rock Star | 1.6 | 2 | 6 | 5 | -- | 1 | 1 | 6 | 6 | 5 | 3 | 2 | 3 | 3 | 7 | 6 | -- |
| Doublestop CL Plus | 1.5 | 2 | 9 | 7 | AC | 1 | 1 | 6 | 6 | 3 | 2 | 4 | 6 | 6 | 5 | 8 | 9 |
| WB 4792 | 1.5 | -- | 7 | 5 | EX | 8 | -- | 5 | 3 | 1 | -- | -- | -- | 5 | 7 | 9 | 3 |
| WB 4699 | 1.3 | -- | 7 | 1 | AC | 3 | -- | 5 | 3 | 3 | -- | -- | 3 | 1 | 5 | 5 | 5 |
| AP Bigfoot | 1.1 | 4 | 3 | 3 | AC | 1 | -- | 3 | 5 | 1 | 1 | 3 | 3 | 3 | -- | 7 | 9 |
| WB 4515 | 1.1 | 2 | 7 | 5 | AC | 1 | -- | 9 | 3 | 7 | 1 | 5 | 5 | 5 | 9 | 9 | 5 |
| KS Dallas | 1.0 | 5 | 5 | 5 | AC | 9 | -- | 1 | 2 | 1 | 1 | 5 | -- | -- | 7 | 9 | 7 |
| Byrd | 0.9 | 1 | 5 | 5 | AC | 2 | 2 | 5 | 7 | 8 | 8 | 8 | -- | 7 | 3 | 7 | 9 |
| Everest | 0.9 | 5 | 1 | 6 | LD | 1 | 1 | 7 | 4 | 3 | 8 | 8 | 4 | 7 | 3 | 4 | 6 |
| KS Providence | 0.9 | 2 | 5 | 5 | AC | 1 | -- | 5 | 5 | 1 | 3 | 5 | 5 | 3 | 3 | 8 | 9 |
| LCS Chrome | 0.9 | 3 | 8 | 7 | AC | 1 | 1 | 7 | 7 | 2 | 2 | 4 | 4 | 4 | 6 | 7 | 1 |
| TAM 111 | 0.9 | 5 | 5 | 7 | AC | 9 | -- | 7 | 7 | 9 | 1 | 1 | 5 | 3 | 7 | 7 | 7 |
| WB 4462 | 0.9 | 6 | 5 | 5 | AC | 1 | 1 | 7 | 5 | 6 | 2 | 2 | 7 | 7 | 7 | 7 | 9 |
| LCS Atomic AX | 0.8 | 1 | 1 | 4 | LD | 1 | -- | -- | -- | 5 | 9 | 1 | 5 | -- | 1 | 8 | -- |
| LCS Chrome | 0.8 | 2 | 7 | 7 | AC | 1 | -- | 7 | 5 | 1 | 3 | 5 | 3 | 3 | 5 | 7 | 1 |
| Smith's Gold | 0.8 | 5 | 5 | 5 | EX | 1 | -- | -- | 5 | 3 | 1 | 1 | 3 | 7 | 3 | 9 | 1 |
| SY Rugged | 0.7 | 5 | 3 | 1 | EX | 1 | -- | 7 | 9 | 3 | 1 | 1 | 7 | 7 | 7 | 9 | 9 |
| Oakley CL | 0.6 | 6 | 7 | 7 | AC | 7 | 7 | 3 | 6 | 5 | 2 | 4 | 5 | 6 | 2 | 5 | 9 |
| SY Grit | 0.6 | 1 | 5 | 7 | AC | 1 | -- | 7 | 5 | 7 | 1 | 5 | 5 | 2 | 7 | 9 | 9 |
| WB 4401 | 0.6 | 5 | 3 | 3 | EX | 1 | -- | 9 | 5 | 3 | 1 | 3 | 5 | 7 | 1 | 8 | 7 |
| Jagger | 0.5 | 7 | 1 | 5 | EX | 3 | -- | 5 | 9 | 9 | 5 | 7 | 3 | 3 | 7 | 7 | 9 |
| KS Western Star | 0.5 | 2 | 4 | 6 | AC | 8 | 8 | 7 | 7 | 8 | 3 | 8 | 5 | 6 | 6 | 7 | 6 |
| Blends | 5.5 | | | | | | | | | | | | | | | | |
| Other White | 1.5 | | | | | | | | | | | | | | | | |
| Other Red | 36.3 | | | | | | | | | | | | | | | | |
| Other Soft | 4.7 | | | | | | | | | | | | | | | | |

¹Varieties and percentage seeded acreage from the March 2024 wheat variety survey, Kansas Agricultural Statistics, Topeka, KS.

²Ratings by Andersen et al., Final ratings and descriptions of disease and insect pests are available in "Kansas Wheat Variety Guide 2024" Publication MF991 from Kansas State University.

³Ratings 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. 2024 NORTH CENTRAL Kansas dryland winter wheat performance test

| Brand / Name | BE ¹ | BL ² | Av. | BE | BL | Av. | BE | BL | Av. |
|--------------------|-----------------|-----------------|------|-------------------|-------|-------|------------|------|------|
| | yield (bu/a) | | | % of test average | | | tw (lb/bu) | | |
| AGRIPRO | | | | | | | | | |
| AP PROLIFIC | 55.3 | 25.8 | 40.5 | 97.9 | 92.2 | 95.0 | 58.5 | 52.2 | 55.4 |
| AP Bigfoot | 48.9 | 23.6 | 36.3 | 86.6 | 84.4 | 85.5 | 58.1 | 49.0 | 53.6 |
| AP24 AX | 57.6 | 25.7 | 41.6 | 101.9 | 91.9 | 96.9 | 57.2 | 52.5 | 54.8 |
| SY Wolverine | 55.2 | 30.1 | 42.7 | 97.7 | 107.7 | 102.7 | 58.9 | 55.4 | 57.2 |
| AGSECO | | | | | | | | | |
| AG Icon | 40.3 | 28.3 | 34.3 | 71.3 | 101.2 | 86.2 | 59.2 | 53.9 | 56.6 |
| AG Golden | 62.4 | 27.3 | 44.9 | 110.4 | 97.7 | 104.1 | 56.9 | 51.1 | 54.0 |
| AG Radical | 50.2 | 31.3 | 40.7 | 88.9 | 111.7 | 100.3 | 57.3 | 55.4 | 56.3 |
| ARMOR | | | | | | | | | |
| AR Iron Eagle 22AX | 54.0 | 29.9 | 41.9 | 95.5 | 106.8 | 101.1 | 58.6 | 53.4 | 56.0 |
| CROPLAN | | | | | | | | | |
| CP7017 AX | 51.7 | 33.6 | 42.6 | 91.5 | 120.0 | 105.8 | 58.7 | 57.2 | 57.9 |
| CP7266AX | 51.4 | 20.9 | 36.2 | 91.1 | 74.7 | 82.9 | 57.5 | 50.0 | 53.8 |
| CP7909 | 53.6 | 28.9 | 41.2 | 94.8 | 103.2 | 99.0 | 57.8 | 54.0 | 55.9 |
| CP7869 | 60.5 | 28.1 | 44.3 | 107.0 | 100.6 | 103.8 | 58.7 | 52.7 | 55.7 |
| CP7220 | 56.1 | 33.0 | 44.5 | 99.3 | 118.0 | 108.6 | 58.2 | 56.6 | 57.4 |
| KWA | | | | | | | | | |
| KS BILL SNYDER | 72.3 | 24.6 | 48.4 | 128.0 | 87.9 | 108.0 | 60.0 | 57.4 | 58.7 |
| KS MAKO | 73.1 | 27.4 | 50.2 | 129.4 | 97.8 | 113.6 | 59.9 | 52.1 | 56.0 |
| KS PROVIDENCE | 54.1 | 28.8 | 41.4 | 95.8 | 102.9 | 99.3 | 58.3 | 53.3 | 55.8 |
| LIMAGRAIN | | | | | | | | | |
| LCS Atomic AX | 54.8 | 30.8 | 42.8 | 96.9 | 110.2 | 103.6 | 59.6 | 57.4 | 58.5 |
| LCS Helix AX | 61.6 | 33.8 | 47.7 | 109.0 | 120.7 | 114.8 | 60.0 | 57.5 | 58.7 |
| LCS Julep | 49.8 | 24.1 | 36.9 | 88.1 | 86.1 | 87.1 | 58.2 | 49.1 | 53.6 |
| LCS Radar | 42.7 | 21.3 | 32.0 | 75.6 | 76.1 | 75.9 | 59.4 | 49.0 | 54.2 |
| LCS Runner | 52.9 | 27.7 | 40.3 | 93.7 | 99.0 | 96.3 | 58.2 | 53.9 | 56.0 |
| LCS Steel AX | 54.9 | 25.6 | 40.2 | 97.1 | 91.7 | 94.4 | 56.9 | 52.0 | 54.5 |
| LCS Warbird | 67.2 | 28.7 | 48.0 | 118.9 | 102.8 | 110.8 | 59.0 | 54.6 | 56.8 |
| OGI | | | | | | | | | |
| Showdown | 63.7 | 30.1 | 46.9 | 112.7 | 107.4 | 110.1 | 58.0 | 54.7 | 56.3 |
| Paradox | 50.3 | 24.9 | 37.6 | 89.1 | 88.9 | 89.0 | 57.7 | 53.2 | 55.4 |
| PLAINSGOLD | | | | | | | | | |
| Canvas | 64.7 | 30.3 | 47.5 | 114.5 | 108.4 | 111.5 | 59.6 | 55.4 | 57.5 |
| Crescent AX | 52.9 | 34.7 | 43.8 | 93.6 | 124.2 | 108.9 | 59.5 | 57.1 | 58.3 |
| CO18D297R | 53.9 | 27.2 | 40.5 | 95.4 | 97.2 | 96.3 | 58.2 | 52.6 | 55.4 |
| POLANSKY | | | | | | | | | |
| Rock Star | 62.6 | 27.8 | 45.2 | 110.8 | 99.3 | 105.1 | 57.7 | 53.0 | 55.3 |
| Paradise | 65.6 | 25.5 | 45.6 | 116.2 | 91.3 | 103.8 | 58.7 | 55.2 | 57.0 |
| High Country | 51.5 | 27.3 | 39.4 | 91.2 | 97.7 | 94.4 | 59.4 | 54.4 | 56.9 |
| Golden Hawk | 55.3 | 29.3 | 42.3 | 97.9 | 104.8 | 101.3 | 57.4 | 53.0 | 55.2 |
| WESTBRED | | | | | | | | | |
| WB4347 | 60.1 | 35.0 | 47.6 | 106.5 | 125.2 | 115.8 | 59.7 | 57.3 | 58.5 |
| WB4401 | 73.6 | 27.7 | 50.6 | 130.2 | 99.0 | 114.6 | 59.8 | 53.8 | 56.8 |
| WB4422 | 54.9 | 25.6 | 40.2 | 97.2 | 91.4 | 94.3 | 58.6 | 55.5 | 57.1 |
| WB4523 | 59.6 | 23.0 | 41.3 | 105.6 | 82.2 | 93.9 | 58.5 | 56.1 | 57.3 |
| WB4699 | 41.1 | 27.3 | 34.2 | 72.8 | 97.8 | 85.3 | 56.2 | 54.9 | 55.6 |
| AVERAGE | 56.5 | 28.0 | 42.2 | 100.0 | 100.0 | 100.0 | 58.5 | 53.7 | 56.1 |
| CV (%) | 4.3 | 2.4 | -- | 4.3 | 2.4 | -- | 0.4 | 1.2 | -- |
| LSD (0.05) | 7.8 | 3.4 | -- | 13.9 | 12.2 | -- | 1.0 | 3.2 | -- |

¹BE=Belleville, KS, North Central Experiment Field, Republic County.²BL=Beloit, KS. Marty Fletchall's field, Mitchell County.

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

Table 3 continued. 2024 NORTH CENTRAL Kansas dryland winter wheat performance test

| 2023-2024 Season | Belleville | Beloit |
|---------------------------------|----------------------|----------------------|
| Date Planted | 10/20/2023 | 11/30/2023 |
| Previous Crop | soybean | soybean |
| Primary Tillage | no till | no till |
| Fertility | 90-0-0 lbs/a N, P, K | 41-0-0 lbs/a N, P, K |
| Date Harvested | 7/5/2024 | 7/23/2024 |
| Seasonal precipitation (inches) | 16.79 | 12.23 |
| Normal precipitation (inches) | 19.48 | 19.72 |

NORTH CENTRAL multi-year averages (2022-2024)

| Brand / Name | -BE- | | BL | |
|---------------------|-----------------------|-------------|-----------|-------------|
| | 2 yr | 3 yr | 2 yr | 3 yr |
| | (bushels/acre) | | | |
| AGRIPRO | | | | |
| AP BIGFOOT | 31.4 | 28.2 | -- | 55.2 |
| AP PROLIFIC | 37.5 | 33.7 | -- | 56.8 |
| SY WOLVERINE | 46.2 | 40.0 | -- | 56.7 |
| AGSECO | | | | |
| AG ICON | 29.1 | 27.8 | -- | 54.9 |
| AG RADICAL | 37.2 | 32.8 | -- | 55.4 |
| KWA | | | | |
| KS MAKO | 48.0 | -- | -- | -- |
| KS PROVIDENCE | 37.4 | 34.5 | -- | 56.0 |
| LIMAGRAIN | | | | |
| LCS ATOMIC AX | 34.8 | 32.0 | -- | 59.3 |
| LCS HELIX AX | 40.7 | 34.4 | -- | 62.4 |
| LCS Julep | 33.4 | 30.7 | -- | 52.9 |
| LCS Runner | -- | 40.3 | -- | 59.9 |
| LCS Steel AX | 37.0 | 32.9 | -- | 58.0 |
| OGI | | | | |
| SHOWDOWN | 43.0 | 37.1 | -- | 58.7 |
| POLANSKY | | | | |
| HIGH COUNTRY | 34.1 | 29.9 | -- | 54.7 |
| PARADISE | 40.6 | 33.8 | -- | 51.4 |
| ROCK STAR | 42.1 | 36.0 | -- | 59.1 |
| WESTBRED | | | | |
| WB4401 | 44.7 | 38.2 | -- | 59.9 |
| WB4422 | 38.0 | 32.4 | -- | 57.0 |
| WB4523 | 38.3 | 33.9 | -- | 52.7 |
| WB4699 | 32.3 | 29.9 | -- | 56.0 |
| AVERAGE | 38.2 | 33.6 | -- | 56.7 |

Table 4. 2024 SOUTHEAST Kansas dryland winter wheat performance test

| Brand / Name | OT ¹ | PA ² | Av. | OT | PA | Av. | OT | PA | Av. | PA | PA |
|------------------|-----------------|-----------------|------|-------------------|-------|-------|---------------------|------|------|----------------|---------|
| | yield (bu/a) | | | % of test average | | | test weight (lb/bu) | | | heading (date) | ht (in) |
| AGRIPRO | | | | | | | | | | | |
| AP PROLIFIC | 38.4 | 95.9 | 67.1 | 105.3 | 100.9 | 103.1 | 48.7 | 59.5 | 54.1 | 21-Apr | 31.3 |
| AGSECO | | | | | | | | | | | |
| AG Radical | 29.4 | 103.7 | 66.5 | 80.7 | 109.1 | 94.9 | 48.3 | 58.8 | 53.5 | 18-Apr | 32.8 |
| KWA | | | | | | | | | | | |
| Everest | 28.5 | 81.1 | 54.8 | 78.2 | 85.3 | 81.7 | 51.2 | 60.3 | 55.8 | 16-Apr | 30.3 |
| KS PROVIDENCE | 50.8 | 98.6 | 74.7 | 139.5 | 103.7 | 121.6 | 49.9 | 59.1 | 54.5 | 17-Apr | 30.8 |
| Zenda | 38.8 | 85.1 | 62.0 | 106.4 | 89.6 | 98.0 | 50.7 | 60.0 | 55.4 | 19-Apr | 30.8 |
| LIMAGRAIN | | | | | | | | | | | |
| LCS Atomic AX | 36.5 | 95.7 | 66.1 | 100.2 | 100.7 | 100.4 | 52.5 | 59.2 | 55.9 | 16-Apr | 31.3 |
| LCS Runner | 28.8 | 91.8 | 60.3 | 79.1 | 96.6 | 87.8 | 46.0 | 58.9 | 52.5 | 20-Apr | 31.3 |
| OGI | | | | | | | | | | | |
| High Cotton | 34.0 | 87.9 | 60.9 | 93.2 | 92.5 | 92.9 | 47.4 | 60.2 | 53.8 | 19-Apr | 32.0 |
| POLANSKY | | | | | | | | | | | |
| Rock Star | 40.3 | 96.1 | 68.2 | 110.7 | 101.1 | 105.9 | 48.0 | 58.3 | 53.2 | 23-Apr | 30.3 |
| High Country | 28.0 | 84.7 | 56.3 | 76.8 | 89.1 | 83.0 | 48.8 | 59.4 | 54.1 | 16-Apr | 30.0 |
| Golden Hawk | 46.2 | 98.4 | 72.3 | 126.7 | 103.5 | 115.1 | 47.5 | 58.8 | 53.2 | 23-Apr | 34.3 |
| WESTBRED | | | | | | | | | | | |
| WB4401 | 34.5 | 100.7 | 67.6 | 94.6 | 105.9 | 100.3 | 46.2 | 58.7 | 52.5 | 16-Apr | 31.5 |
| WB4422 | 37.4 | 102.3 | 69.8 | 102.7 | 107.6 | 105.2 | 48.4 | 60.6 | 54.5 | 23-Apr | 34.5 |
| WB4523 | 38.8 | 103.5 | 71.2 | 106.4 | 108.9 | 107.7 | 46.8 | 58.9 | 52.9 | 16-Apr | 29.0 |
| WB4699 | 36.2 | 100.3 | 68.3 | 99.4 | 105.5 | 102.5 | 48.6 | 58.8 | 53.7 | 22-Apr | 30.3 |
| AVERAGE | 36.4 | 95.1 | 65.7 | 100.0 | 100.0 | 100.0 | 48.6 | 59.3 | 53.9 | 19-Apr | 31.3 |
| CV (%) | 6.4 | 5.3 | -- | 6.4 | 5.3 | -- | 2.3 | 0.6 | -- | 1.5 | 1.1 |
| LSD (0.05)* | 6.2 | 7.1 | -- | 17.1 | 7.4 | -- | 1.8 | 0.7 | -- | 2.7 | 1.5 |

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.

| 2023-2024 Season | Ottawa | Parsons |
|---------------------------------|-------------------------|-------------------------|
| Date Planted | 11/16/2023 | 10/4/2023 |
| Previous Crop | soybean | corn |
| Primary Tillage | strip | no till |
| Fertility | 123-50-50 lbs/a N, P, K | 125-50-50 lbs/a N, P, K |
| Date Harvested | 7/3/2024 | 6/7/2024 |
| Seasonal precipitation (inches) | 25.9 | 30.2 |
| Normal precipitation (inches) | 24.8 | 27.9 |

SOUTHEAST Kansas multi-year averages (2022-2024)

| Brand / Name | -OT- | | -PA- | |
|-----------------|----------------|------|------|------|
| | 2 yr | 3 yr | 2 yr | 3 yr |
| | (bushels/acre) | | | |
| AGRIPRO | | | | |
| PROLIFIC | 51.8 | 60.2 | 82.8 | 82.6 |
| AGSECO | | | | |
| AG RADICAL | 48.7 | 54.6 | 95.3 | 88.6 |
| KWA | | | | |
| EVEREST | 46.3 | 50.3 | 73.3 | 70.2 |
| KS PROVIDENCE | 64.7 | 66.4 | 82.6 | 77.2 |
| ZENDA | 53.9 | 57.9 | 71.6 | 72.8 |
| POLANSKY | | | | |
| HIGH COUNTRY | 46.2 | -- | 74.7 | -- |
| ROCK STAR | 56.9 | 59.9 | 83.8 | 81.9 |
| WESTBRED | | | | |
| WB4401 | 53.7 | 56.2 | 92.3 | 86.0 |
| WB4422 | 56.0 | 64.4 | 91.4 | 89.2 |
| WB4523 | 56.5 | 64.7 | 92.1 | 85.5 |
| WB4699 | 49.0 | 56.0 | 88.4 | 89.6 |
| AVERAGE | 53.1 | 59.1 | 84.4 | 82.4 |

Table 5. 2024 SOUTHEAST Kansas SOFT winter wheat performance test

| Brand / Name | OT ¹ | PA ² | Av. | OT | PA | Av. | OT | PA | Av. | PA | PA |
|-----------------|-----------------|-----------------|------|-------------------|-------|-------|---------------------|------|------|----------------|-------------|
| | yield (bu/a) | | | % of test average | | | test weight (lb/bu) | | | heading (date) | height (in) |
| AGRIMAXX | | | | | | | | | | | |
| AM 492 | 44.4 | 102.1 | 73.2 | 100.6 | 100.2 | 100.4 | 52.6 | 60.0 | 56.3 | 16-Apr | 30.8 |
| AM 503 | 46.0 | 105.0 | 75.5 | 104.3 | 103.0 | 103.7 | 52.0 | 59.5 | 55.8 | 22-Apr | 33.0 |
| AM 505 | 51.4 | 103.2 | 77.3 | 116.6 | 101.3 | 108.9 | 52.7 | 59.1 | 55.9 | 22-Apr | 31.5 |
| AM 513 | 44.6 | 101.2 | 72.9 | 101.2 | 99.3 | 100.2 | 49.6 | 58.6 | 54.1 | 22-Apr | 31.8 |
| AM 514 | 36.0 | 104.8 | 70.4 | 81.6 | 102.8 | 92.2 | 48.9 | 57.4 | 53.1 | 22-Apr | 32.0 |
| AM 535 | 49.2 | 104.1 | 76.6 | 111.6 | 102.1 | 106.9 | 50.9 | 58.0 | 54.4 | 22-Apr | 31.8 |
| AM 545 | 48.6 | 101.4 | 75.0 | 110.3 | 99.5 | 104.9 | 49.4 | 56.7 | 53.0 | 24-Apr | 31.8 |
| EXP2405 | 48.6 | 110.5 | 79.6 | 110.2 | 108.5 | 109.3 | 50.6 | 57.3 | 54.0 | 23-Apr | 31.0 |
| PIONEER | | | | | | | | | | | |
| P25R65 | 38.4 | 104.8 | 71.6 | 87.2 | 102.8 | 95.0 | 48.7 | 57.0 | 52.8 | 23-Apr | 32.3 |
| P25R74 | 44.8 | 104.1 | 74.5 | 101.7 | 102.2 | 101.9 | 50.5 | 58.3 | 54.4 | 21-Apr | 23.8 |
| P25R76 | 40.3 | 91.3 | 65.8 | 91.4 | 89.6 | 90.5 | 51.1 | 58.8 | 54.9 | 18-Apr | 31.8 |
| WESTBRED | | | | | | | | | | | |
| WB24545 | 46.5 | 97.4 | 71.9 | 105.4 | 95.6 | 100.5 | 51.5 | 59.3 | 55.4 | 23-Apr | 31.5 |
| WB2606 | 34.4 | 95.0 | 64.7 | 78.0 | 93.2 | 85.6 | 47.6 | 58.6 | 53.1 | 24-Apr | 31.3 |
| AVERAGE | 44.1 | 101.9 | 73.0 | 100.0 | 100.0 | 100.0 | 50.5 | 58.3 | 54.4 | 21-Apr | 31.1 |
| CV (%) | 7.7 | 5.6 | -- | 7.7 | 5.6 | -- | 1.6 | 1.0 | -- | 0.8 | 2.1 |
| LSD (0.05)* | 5.1 | 4.8 | -- | 11.6 | 4.7 | -- | 1.5 | 1.0 | -- | 2.3 | 2.2 |

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. Top LSD value in bold.

| 2023-2024 Season | Ottawa | Parsons |
|---------------------------------|-------------------------|-------------------------|
| Date Planted | 11/16/2023 | 10/4/2023 |
| Previous Crop | soybean | corn |
| Primary Tillage | strip | no till |
| Fertility | 123-50-50 lbs/a N, P, K | 125-50-50 lbs/a N, P, K |
| Date Harvested | 7/3/2024 | 6/7/2024 |
| Seasonal precipitation (inches) | 25.9 | 30.2 |
| Normal precipitation (inches) | 24.8 | 27.9 |

SOUTHEAST Kansas SOFT multi-year averages (2022-2024)

| Brand / Name | -OT- | | -PA- | |
|-----------------|----------------|------|------|------|
| | 2 yr | 3 yr | 2 yr | 3 yr |
| | (bushels/acre) | | | |
| Agrimaxx | | | | |
| AM 503 | 64.9 | -- | 91.0 | 87.5 |
| AM 505 | 65.4 | -- | 94.5 | 92.6 |
| AM 513 | 61.4 | -- | 91.3 | -- |
| AM 514 | 55.9 | -- | 94.7 | 92.3 |
| AM 535 | 61.4 | -- | 94.2 | -- |
| PIONEER | | | | |
| P25R74 | -- | -- | -- | 98.4 |
| P25R76 | -- | -- | -- | 85.2 |
| WESTBRED | | | | |
| WB2606 | 53.6 | -- | -- | 88.9 |
| AVERAGE | 60.4 | -- | 93.1 | 90.8 |

Table 6. 2024 CENTRAL Kansas dryland winter wheat performance test

| Brand / Name | EL ¹ | HL ² yield (bu/a) | AS ³ | Av. | % of test average | | | | test weight (lb/bu) | | | |
|-------------------|-----------------|---------------------------------|-----------------|------|-------------------|-------|-------|-------|---------------------|------|------|------|
| | | | | | EL | HL | AS | Av. | EL | HL | AS | Av. |
| AGRIPRO | | | | | | | | | | | | |
| AP PROLIFIC | 63.5 | 75.6 | 72.1 | 70.4 | 97.2 | 105.0 | 100.2 | 100.8 | 59.3 | 57.9 | 57.9 | 58.3 |
| AP24 AX | 65.0 | 77.3 | 72.1 | 71.5 | 99.6 | 107.4 | 100.2 | 102.4 | 58.5 | 57.6 | 56.2 | 57.4 |
| Bigfoot | 81.6 | 70.4 | 72.4 | 74.8 | 124.9 | 97.8 | 100.6 | 107.8 | 60.1 | 56.7 | 57.8 | 58.2 |
| SY Wolverine | 62.5 | 76.6 | 73.1 | 70.7 | 95.8 | 106.4 | 101.5 | 101.2 | 59.0 | 53.2 | 56.3 | 56.2 |
| AGSECO | | | | | | | | | | | | |
| AG Icon | 68.6 | 63.1 | 73.0 | 68.2 | 105.0 | 87.7 | 101.5 | 98.1 | 59.9 | 58.8 | 58.1 | 58.9 |
| AG Radical | 59.1 | 78.0 | 71.9 | 69.7 | 90.5 | 108.4 | 100.0 | 99.6 | 57.3 | 57.4 | 56.5 | 57.1 |
| KWA | | | | | | | | | | | | |
| KS Ahearn | 75.2 | 72.7 | 73.5 | 73.8 | 115.1 | 101.0 | 102.1 | 106.1 | 60.3 | 58.3 | 58.0 | 58.9 |
| KS Bill Snyder | 76.4 | 65.2 | 80.3 | 74.0 | 117.0 | 90.7 | 111.5 | 106.4 | 60.1 | 57.0 | 58.5 | 58.5 |
| KS Hatchett | 57.3 | 73.4 | 63.2 | 64.6 | 87.7 | 101.9 | 87.8 | 92.5 | 57.6 | 56.9 | 56.6 | 57.0 |
| KS Mako | 60.6 | 63.5 | 78.3 | 67.5 | 92.8 | 88.3 | 108.8 | 96.6 | 59.6 | 59.3 | 59.0 | 59.3 |
| KS Providence | 65.9 | 75.9 | 76.7 | 72.8 | 100.9 | 105.4 | 106.6 | 104.3 | 59.7 | 57.9 | 59.0 | 58.8 |
| LIMAGRAIN | | | | | | | | | | | | |
| LCS Atomic AX | 58.0 | 75.5 | 68.4 | 67.3 | 88.8 | 105.0 | 95.1 | 96.3 | 59.5 | 58.5 | 58.0 | 58.7 |
| LCS Helix AX | 86.1 | 73.8 | 73.1 | 77.7 | 131.9 | 102.6 | 101.5 | 112.0 | 60.6 | 58.9 | 58.6 | 59.3 |
| LCS Julep | 48.9 | 61.5 | 72.4 | 60.9 | 74.9 | 85.4 | 100.6 | 87.0 | 58.9 | 56.6 | 58.0 | 57.8 |
| LCS Runner | 60.4 | 73.4 | 72.7 | 68.9 | 92.5 | 102.0 | 101.1 | 98.6 | 59.5 | 58.0 | 57.5 | 58.3 |
| LCS Steel AX | 69.6 | 74.9 | 72.8 | 72.4 | 106.6 | 104.1 | 101.1 | 103.9 | 61.0 | 59.1 | 57.6 | 59.2 |
| LCS Warbird AX | 49.3 | 69.5 | 71.7 | 63.5 | 75.6 | 96.5 | 99.7 | 90.6 | 58.8 | 59.0 | 58.8 | 58.9 |
| OGI | | | | | | | | | | | | |
| Doublestop CL+ | 56.1 | 63.8 | 66.8 | 62.2 | 85.9 | 88.6 | 92.8 | 89.1 | 60.5 | 58.1 | 59.3 | 59.3 |
| High Cotton | 65.4 | 72.8 | 72.7 | 70.3 | 100.1 | 101.1 | 101.1 | 100.8 | 59.5 | 57.6 | 58.1 | 58.4 |
| OK Corral | 64.7 | 64.0 | 68.7 | 65.8 | 99.1 | 88.9 | 95.4 | 94.5 | 58.5 | 56.5 | 57.3 | 57.4 |
| Paradox | 69.1 | 72.8 | 65.8 | 69.2 | 105.8 | 101.1 | 91.5 | 99.5 | 59.6 | 55.7 | 57.3 | 57.5 |
| Showdown | 53.0 | 74.0 | 75.3 | 67.4 | 81.2 | 102.9 | 104.6 | 96.2 | 58.7 | 56.9 | 57.7 | 57.8 |
| PLAINSGOLD | | | | | | | | | | | | |
| Canvas | 74.3 | 74.8 | 69.2 | 72.8 | 113.8 | 103.9 | 96.1 | 104.6 | 60.6 | 59.0 | 59.0 | 59.5 |
| CO18D297R | 78.4 | 64.5 | 77.0 | 73.3 | 120.1 | 89.6 | 107.0 | 105.6 | 61.0 | 59.0 | 58.2 | 59.4 |
| Crescent AX | 64.7 | 72.8 | 60.6 | 66.0 | 99.1 | 101.2 | 84.2 | 94.8 | 59.1 | 58.3 | 58.3 | 58.5 |
| Kivari AX | 61.5 | 77.5 | 80.7 | 73.2 | 94.1 | 107.6 | 112.1 | 104.6 | 58.2 | 57.9 | 57.4 | 57.8 |
| POLANSKY | | | | | | | | | | | | |
| Golden Hawk | 64.0 | 74.0 | 66.4 | 68.1 | 98.0 | 102.8 | 92.3 | 97.7 | 58.4 | 57.5 | 56.8 | 57.5 |
| High Country | 62.8 | 73.9 | 65.3 | 67.3 | 96.1 | 102.7 | 90.8 | 96.5 | 58.6 | 57.8 | 57.4 | 58.0 |
| Paradise | 62.4 | 67.8 | 62.0 | 64.0 | 95.5 | 94.2 | 86.1 | 91.9 | 59.4 | 57.8 | 57.8 | 58.3 |
| Rockstar | 70.3 | 75.6 | 77.0 | 74.3 | 107.7 | 105.0 | 107.0 | 106.6 | 60.1 | 57.6 | 58.0 | 58.6 |
| WESTBRED | | | | | | | | | | | | |
| WB4401 | 66.4 | 75.0 | 69.8 | 70.4 | 101.7 | 104.2 | 97.0 | 101.0 | 58.7 | 56.8 | 57.9 | 57.8 |
| WB4422 | 80.3 | 71.7 | 69.9 | 74.0 | 122.9 | 99.7 | 97.1 | 106.6 | 60.9 | 58.5 | 58.9 | 59.4 |
| WB4445CLP | 71.7 | 72.3 | 77.7 | 73.9 | 109.9 | 100.4 | 107.9 | 106.1 | 60.8 | 59.5 | 58.5 | 59.6 |
| WB4523 | 58.4 | 73.1 | 78.7 | 70.0 | 89.4 | 101.6 | 109.3 | 100.1 | 59.4 | 57.5 | 58.2 | 58.4 |
| WB4699 | 53.9 | 78.5 | 77.4 | 69.9 | 82.5 | 109.1 | 107.6 | 99.7 | 58.3 | 56.1 | 56.6 | 57.0 |
| AVERAGE | 65.3 | 72.0 | 72.0 | 69.7 | 100.0 | 100.0 | 100.0 | 100.0 | 59.4 | 57.7 | 57.9 | 58.3 |
| CV (%) | 10.7 | 6.5 | 5.3 | -- | 10.7 | 6.5 | 5.3 | -- | 0.8 | 0.9 | 0.3 | -- |
| LSD (0.05)* | 8.8 | 4.7 | 8.8 | -- | 13.4 | 6.6 | 12.3 | -- | 0.9 | 1.2 | 1.4 | -- |

¹EL=Ellsworth, KS, farmer's field, Ellsworth County.

²HL= Hillsboro, KS, farmer's field, Marion County.

³AS=Assaria, KS, farmer's field, Saline County.

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

| 2023-2024 Season | Ellsworth | Hillsboro | Assaria |
|---------------------------------|-----------|--------------|--------------|
| Date Planted | 10/2/2023 | 10/18/2023 | 10/18/2023 |
| Previous Crop | wheat | failed wheat | soybean |
| Primary Tillage | minimum | conventional | conventional |
| Date Harvested | 6/19/2024 | 6/25/2024 | 6/20/2024 |
| Seasonal precipitation (inches) | 16.0 | 18.6 | 17.9 |
| Normal precipitation (inches) | 18.6 | 22.3 | 19.7 |

CENTRAL Kansas multi-year averages (2022-2024)

| Brand / Name | -EL- | | -HL- | -AS- | |
|----------------|------|------|------|------|------|
| | 2 yr | 3 yr | 3 yr | 2 yr | 3 yr |
| (bushels/acre) | | | | | |
| AGRIPRO | | | | | |
| AP BIGFOOT | 58.2 | 59.4 | 77.6 | 59.1 | 56.2 |
| AP PROLIFIC | 47.9 | 55.7 | 84.3 | 62.7 | 56.9 |
| SY WOLVERINE | 44.4 | 57.3 | 88.8 | 63.4 | 59.3 |

Table 6 continued. 2024 CENTRAL Kansas dryland winter wheat performance test

| Brand / Name | -EL- | | -HL- | -AS- | |
|--------------------|------|------|------|------|------|
| | 2 yr | 3 yr | 3 yr | 2 yr | 3 yr |
| AGSECO | | | | | |
| AG ICON | 54.3 | 56.9 | 70.0 | 64.3 | 59.2 |
| AG RADICAL | 48.3 | 53.3 | 84.6 | 64.6 | 60.9 |
| KWA | | | | | |
| KS AHEARN | 51.1 | 58.2 | 75.9 | 61.7 | 56.3 |
| KS HATCHETT | 43.4 | 53.7 | 77.8 | 56.4 | 53.6 |
| KS MAKO | 56.8 | -- | -- | 67.1 | -- |
| KS PROVIDENCE | 58.2 | 63.0 | 82.5 | 67.6 | 62.4 |
| LIMAGRAIN | | | | | |
| LCS ATOMIC AX | 46.2 | 50.2 | 81.3 | 60.9 | 57.3 |
| LCS HELIX AX | 60.3 | 64.8 | 80.4 | 62.2 | 58.5 |
| LCS JULEP | 46.3 | 56.9 | 74.8 | 65.9 | 60.3 |
| LCS STEEL AX | 53.3 | 63.5 | 82.3 | 65.6 | 60.3 |
| OGI | | | | | |
| DOUBLESTOP CL PLUS | 45.5 | 52.5 | 72.1 | 60.3 | 57.8 |
| SHOWDOWN | 45.0 | 54.4 | 81.0 | 62.3 | 58.3 |
| PLAINSGOLD | | | | | |
| CANVAS | 61.2 | 60.5 | 80.3 | 65.6 | 61.5 |
| CRESCENT AX | 47.6 | 52.3 | 77.9 | 56.2 | 53.2 |
| KIVARI AX | 54.5 | 61.6 | 76.7 | 67.3 | 63.2 |
| POLANSKY | | | | | |
| HIGH COUNTRY | 52.4 | 55.8 | 77.9 | 58.7 | 56.3 |
| PARADISE | 48.8 | 56.4 | 75.8 | 52.6 | 51.4 |
| ROCK STAR | 54.7 | 60.2 | 81.9 | 67.0 | 61.4 |
| WESTBRED | | | | | |
| WB4401 | 49.6 | 55.4 | 85.3 | 62.8 | 56.7 |
| WB4422 | 60.7 | 68.3 | 86.7 | 68.4 | 64.0 |
| WB4523 | 46.4 | 54.3 | 77.7 | 65.1 | 59.8 |
| WB4699 | 46.6 | 53.3 | 83.3 | 65.7 | 60.7 |
| AVERAGE | 51.3 | 57.4 | 79.9 | 62.9 | 58.6 |

Table 7. 2024 SOUTH CENTRAL Kansas dryland winter wheat performance test

| Brand / Name | NW ¹ | HU ² | Av. | NW | HU | Av. | NW | HU | Av. |
|--------------------|-----------------|-----------------|------|-------------------|-------|-------|---------------------|------|------|
| | yield (bu/a) | | | % of test average | | | test weight (lb/bu) | | |
| AGRIPRO | | | | | | | | | |
| AP PROLIFIC | 106.4 | 52.3 | 79.4 | 112.0 | 103.2 | 107.6 | 58.2 | 57.9 | 58.1 |
| AP24 AX | 99.6 | 31.6 | 65.6 | 104.8 | 62.3 | 83.6 | 56.1 | 57.1 | 56.6 |
| Bigfoot | 87.9 | 50.7 | 69.3 | 92.5 | 99.9 | 96.2 | 58.3 | 59.0 | 58.6 |
| Roadrunner | 97.1 | 53.6 | 75.3 | 102.2 | 105.6 | 103.9 | 56.4 | 56.5 | 56.4 |
| SY Wolverine | 99.5 | 48.3 | 73.9 | 104.7 | 95.3 | 100.0 | 57.7 | 57.2 | 57.5 |
| AGSECO | | | | | | | | | |
| AG Icon | 97.8 | 55.3 | 76.6 | 103.0 | 109.1 | 106.0 | 58.5 | 59.7 | 59.1 |
| AG Radical | 99.5 | 54.9 | 77.2 | 104.7 | 108.4 | 106.5 | 55.4 | 58.4 | 56.9 |
| ARMOR | | | | | | | | | |
| AR Iron Eagle 22AX | 99.4 | 50.7 | 75.1 | 104.6 | 100.0 | 102.3 | 57.3 | 59.6 | 58.5 |
| CROPLAN | | | | | | | | | |
| CP7017AX | 92.8 | 51.3 | 72.0 | 97.6 | 101.1 | 99.4 | 57.7 | 59.4 | 58.6 |
| CP7220 | 93.9 | 45.6 | 69.8 | 98.8 | 90.0 | 94.4 | 58.0 | 59.8 | 58.9 |
| CP7266AX | 88.2 | 38.2 | 63.2 | 92.8 | 75.3 | 84.0 | 58.6 | 57.3 | 57.9 |
| CP7869 | 97.4 | 59.2 | 78.3 | 102.5 | 116.8 | 109.7 | 56.9 | 58.8 | 57.8 |
| CP7909 | 99.4 | 56.5 | 77.9 | 104.6 | 111.4 | 108.0 | 58.3 | 57.6 | 57.9 |
| KWA | | | | | | | | | |
| KS Ahearn | 93.1 | 49.1 | 71.1 | 98.0 | 96.8 | 97.4 | 56.9 | 57.6 | 57.2 |
| KS Bill Snyder | 104.2 | 53.5 | 78.8 | 109.7 | 105.5 | 107.6 | 58.0 | 58.0 | 58.0 |
| KS Hatchett | 94.7 | 49.0 | 71.8 | 99.7 | 96.6 | 98.1 | 56.7 | 57.8 | 57.2 |
| KS Mako | 98.6 | 43.1 | 70.8 | 103.8 | 84.9 | 94.4 | 59.0 | 59.0 | 59.0 |
| KS Providence | 101.1 | 40.4 | 70.8 | 106.4 | 79.8 | 93.1 | 57.2 | 57.8 | 57.5 |
| Zenda | 93.5 | 49.0 | 71.2 | 98.4 | 96.6 | 97.5 | 58.6 | 58.4 | 58.5 |
| LIMAGRAIN | | | | | | | | | |
| LCS Atomic AX | 92.8 | 60.8 | 76.8 | 97.6 | 119.9 | 108.7 | 58.8 | 58.9 | 58.8 |
| LCS Galloway AX | 84.9 | 33.0 | 58.9 | 89.3 | 65.0 | 77.2 | 57.8 | 58.9 | 58.3 |
| LCS Helix AX | 92.3 | 57.1 | 74.7 | 97.1 | 112.6 | 104.9 | 58.7 | 59.3 | 59.0 |
| LCS Julep | 93.7 | 43.0 | 68.3 | 98.6 | 84.9 | 91.7 | 58.3 | 57.6 | 57.9 |
| LCS Runner | 89.7 | 62.0 | 75.9 | 94.4 | 122.4 | 108.4 | 57.9 | 59.0 | 58.4 |
| LCS Steel AX | 98.0 | 43.4 | 70.7 | 103.2 | 85.6 | 94.4 | 56.2 | 57.4 | 56.8 |
| LCS Warbird AX | 94.4 | 61.3 | 77.8 | 99.3 | 120.8 | 110.1 | 58.6 | 59.3 | 59.0 |
| OGI | | | | | | | | | |
| Doublestop CL+ | 93.0 | 57.5 | 75.2 | 97.9 | 113.4 | 105.6 | 59.5 | 58.8 | 59.1 |
| Green Hammer | 97.6 | 61.0 | 79.3 | 102.8 | 120.4 | 111.6 | 58.9 | 57.7 | 58.3 |
| High Cotton | 98.8 | 46.3 | 72.5 | 104.0 | 91.3 | 97.6 | 58.0 | 58.5 | 58.2 |
| OK Corral | 98.2 | 55.0 | 76.6 | 103.4 | 108.5 | 106.0 | 56.4 | 56.3 | 56.3 |
| Paradox | 94.3 | 56.1 | 75.2 | 99.3 | 110.6 | 104.9 | 56.8 | 56.3 | 56.5 |
| Showdown | 100.3 | 64.2 | 82.3 | 105.5 | 126.7 | 116.1 | 57.4 | 58.6 | 58.0 |
| Smith's Gold | 90.3 | 37.7 | 64.0 | 95.0 | 74.4 | 84.7 | 58.6 | 60.0 | 59.3 |
| Strad CL+ | 95.8 | 53.4 | 74.6 | 100.8 | 105.2 | 103.0 | 58.0 | 57.8 | 57.9 |
| Uncharted | 86.6 | 45.1 | 65.9 | 91.1 | 89.0 | 90.1 | 57.9 | 56.7 | 57.3 |
| PLAINSGOLD | | | | | | | | | |
| Canvas | 88.6 | 60.7 | 74.6 | 93.2 | 119.7 | 106.5 | 56.5 | 59.8 | 58.2 |
| CO18D297R | 89.5 | 35.4 | 62.5 | 94.2 | 69.8 | 82.0 | 57.1 | 59.4 | 58.3 |
| Crescent AX | 82.0 | 54.2 | 68.1 | 86.3 | 106.9 | 96.6 | 58.0 | 58.7 | 58.4 |
| Kivari AX | 83.8 | 54.5 | 69.2 | 88.2 | 107.6 | 97.9 | 55.9 | 58.0 | 56.9 |
| POLANSKY | | | | | | | | | |
| Golden Hawk | 101.6 | 62.7 | 82.1 | 106.9 | 123.6 | 115.3 | 58.0 | 57.6 | 57.8 |
| Paradise | 89.4 | 65.1 | 77.3 | 94.1 | 128.5 | 111.3 | 58.3 | 58.7 | 58.5 |
| Rockstar | 95.8 | 46.7 | 71.2 | 100.8 | 92.0 | 96.4 | 56.2 | 58.0 | 57.1 |
| WESTBRED | | | | | | | | | |
| WB4401 | 94.4 | 40.3 | 67.4 | 99.3 | 79.6 | 89.4 | 56.5 | 58.7 | 57.6 |
| WB4422 | 105.4 | 55.4 | 80.4 | 110.9 | 109.3 | 110.1 | 58.8 | 58.5 | 58.6 |
| WB4445CLP | 97.2 | 54.5 | 75.8 | 102.3 | 107.4 | 104.9 | 58.8 | 59.6 | 59.2 |
| WB4523 | 96.7 | 39.5 | 68.1 | 101.7 | 77.9 | 89.8 | 55.9 | 57.4 | 56.6 |
| WB4699 | 97.2 | 44.8 | 71.0 | 102.3 | 88.4 | 95.3 | 56.4 | 56.5 | 56.5 |

Table 7 continued. 2024 SOUTH CENTRAL Kansas dryland winter wheat performance test

| Brand / Name | NW ¹ | HU ² | Av. | NW | HU | Av. | NW | HU | Av. |
|--------------|-----------------|-----------------|------|-------|-------|-------|------|------|------|
| AVERAGE | 95.0 | 50.7 | 72.9 | 100.0 | 100.0 | 100.0 | 57.6 | 58.3 | 57.9 |
| CV (%) | 6.0 | 6.1 | -- | 6.0 | 6.1 | -- | 0.5 | 0.6 | -- |
| LSD (0.05)* | 5.4 | 8.4 | -- | 5.7 | 16.6 | -- | 1.0 | 1.0 | -- |

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

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

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

| 2023-2024 Season | Newton | Hutchinson |
|---------------------------------|------------|----------------------|
| Date Planted | 10/18/2023 | 10/20/2023 |
| Previous Crop | soybean | fallow/failed canola |
| Primary Tillage | no till | conventional |
| Date Harvested | 6/24/2024 | 6/21/2024 |
| Seasonal precipitation (inches) | 17.01 | 12.78 |
| Normal precipitation (inches) | 18.79 | 19.39 |

SOUTH CENTRAL Kansas multi-year averages (2022-2024)

| Brand / Name | -NW- | | -HU- | |
|--------------------|------|------|------|------|
| | 2 yr | 3 yr | 2 yr | 3 yr |
| AGRIPRO | | | | |
| AP BIGFOOT | 58.8 | 58.6 | 54.6 | 60.8 |
| AP PROLIFIC | 75.0 | 68.0 | 58.5 | 60.7 |
| SY WOLVERINE | 76.4 | 70.2 | 54.7 | 59.0 |
| AGSECO | | | | |
| AG ICON | 73.8 | 67.7 | 56.8 | 60.9 |
| AG RADICAL | 71.1 | 65.9 | 54.8 | 59.8 |
| CROPLAN | | | | |
| CP7017AX | 68.2 | 62.7 | 56.5 | 62.2 |
| CP7266AX | 61.8 | 56.7 | 52.8 | 55.7 |
| CP7909 | 70.5 | 67.9 | 54.6 | 61.9 |
| KWA | | | | |
| KS AHEARN | 67.4 | 64.3 | 52.2 | 57.3 |
| KS HATCHETT | 66.0 | 64.0 | 51.4 | 54.6 |
| KS PROVIDENCE | 69.3 | 65.4 | 51.8 | 60.0 |
| ZENDA | 67.3 | 61.0 | 53.3 | 54.2 |
| LIMAGRAIN | | | | |
| LCS ATOMIC AX | 66.6 | 64.2 | 53.1 | 57.3 |
| LCS GALLOWAY | 63.3 | -- | 44.8 | -- |
| LCS HELIX AX | 63.4 | 60.3 | 57.4 | 59.6 |
| LCS JULEP | 72.0 | 65.8 | 52.4 | 55.8 |
| LCS RUNNER | -- | 73.2 | -- | 69.3 |
| LCS STEEL AX | 75.5 | 68.4 | 55.9 | 61.6 |
| OGI | | | | |
| DOUBLESTOP CL PLUS | 65.4 | 61.6 | 60.4 | 58.9 |
| GREEN HAMMER | 66.7 | 61.3 | 62.1 | 60.7 |
| OK CORRAL | 68.5 | 65.3 | 53.1 | 58.0 |
| PARADOX | 67.7 | -- | 54.4 | -- |
| SHOWDOWN | 65.5 | 66.0 | 60.5 | 62.8 |
| SMITH'S GOLD | 65.7 | 61.8 | 48.0 | 52.0 |
| STRAD CL PLUS | 68.4 | 63.7 | 51.4 | 53.4 |
| PLAINSGOLD | | | | |
| CANVAS | 67.2 | 63.8 | 61.8 | 65.7 |
| CRESCENT AX | 62.3 | 64.0 | 60.1 | 62.9 |
| KIVARI AX | 68.4 | 66.6 | 56.8 | 62.8 |
| POLANSKY | | | | |
| PARADISE | 65.4 | 61.1 | 58.6 | 59.3 |
| ROCK STAR | 71.1 | 65.5 | 51.2 | 59.0 |
| WESTBRED | | | | |
| WB4401 | 67.3 | 66.0 | 50.3 | 54.9 |
| WB4422 | 75.6 | 68.5 | 58.4 | 63.2 |
| WB4523 | 69.7 | 66.8 | 46.5 | 52.7 |
| WB4699 | 69.0 | 64.0 | 49.1 | 53.0 |
| AVERAGE | 68.2 | 64.7 | 54.5 | 59.1 |

Table 8. 2024 SOUTH CENTRAL non-treated dryland winter wheat performance test

| Brand/ Name | WL ¹ | WL | 2 yr | 3 yr | WL |
|--------------------|-----------------|-------------------|----------------------|------|---------------------|
| | yield (bu/a) | % of test average | multiyear av. (bu/a) | | test weight (lb/bu) |
| AGRIPRO | | | | | |
| AP PROLIFIC | 62.2 | 89.8 | 46.1 | 48.9 | 58.7 |
| AP24 AX | 72.3 | 104.4 | -- | -- | 59.4 |
| Bigfoot | 61.5 | 88.8 | -- | -- | 60.9 |
| Roadrunner | 65.5 | 94.6 | -- | -- | 59.0 |
| AGSECO | | | | | |
| AG Icon | 77.6 | 112.1 | 51.1 | 51.0 | 60.3 |
| AG Radical | 75.1 | 108.5 | 50.4 | 53.0 | 60.5 |
| ARMOR | | | | | |
| AR Iron Eagle 22AX | 57.4 | 82.8 | -- | -- | 58.5 |
| CROPLAN | | | | | |
| CP7017AX | 56.6 | 81.7 | 40.2 | -- | 59.4 |
| CP7220 | 59.2 | 85.4 | -- | -- | 60.2 |
| CP7266AX | 62.9 | 90.9 | 41.4 | -- | 58.9 |
| CP7869 | 84.9 | 122.6 | 57.6 | -- | 60.7 |
| CP7909 | 75.6 | 109.2 | 49.5 | -- | 61.1 |
| KWA | | | | | |
| KS Ahearn | 71.0 | 102.5 | 50.3 | 47.3 | 61.2 |
| KS Mako | 74.4 | 107.5 | 49.9 | -- | 61.5 |
| KS Providence | 79.9 | 115.4 | 54.7 | 54.5 | 60.6 |
| Zenda | 60.2 | 87.0 | 41.3 | 43.3 | 59.7 |
| LIMAGRAIN | | | | | |
| LCS Atomic AX | 73.9 | 106.7 | 50.5 | 50.0 | 61.7 |
| LCS Galloway AX | 70.9 | 102.4 | 49.8 | -- | 60.1 |
| LCS Helix AX | 81.8 | 118.2 | 53.5 | 52.4 | 62.5 |
| LCS Julep | 59.2 | 85.5 | 44.6 | 44.4 | 59.3 |
| LSC Runner | 60.1 | 86.9 | -- | 54.7 | 60.5 |
| LCS Steel AX | 79.1 | 114.2 | 53.3 | 54.0 | 59.7 |
| LCS Warbird AX | 73.2 | 105.8 | -- | -- | 60.6 |
| OGI | | | | | |
| Doublestop CL+ | 63.3 | 91.4 | 46.3 | 47.9 | 57.5 |
| Green Hammer | 72.2 | 104.2 | 50.2 | -- | 60.0 |
| High Cotton | 64.4 | 93.1 | -- | -- | 60.7 |
| OK Corral | 69.8 | 100.7 | 46.6 | 44.0 | 58.1 |
| Paradox | 61.8 | 89.3 | -- | -- | 57.0 |
| Showdown | 88.2 | 127.4 | 57.5 | 57.9 | 61.1 |
| Strad CL+ | 68.0 | 98.2 | 58.6 | 55.4 | 59.2 |
| Uncharted | 49.3 | 71.2 | 34.8 | 38.6 | 55.2 |
| PLAINSGOLD | | | | | |
| Canvas | 68.4 | 98.8 | -- | -- | 60.2 |
| CO18035RA | 74.1 | 107.0 | -- | -- | 60.3 |
| CO18D297R | 61.1 | 88.2 | -- | -- | 59.3 |
| Crescent AX | 69.9 | 100.9 | -- | 62.8 | 61.1 |
| Kivari AX | 71.8 | 103.7 | -- | 63.3 | 60.0 |
| POLANSKY | | | | | |
| Golden Hawk | 71.0 | 102.5 | -- | -- | 58.3 |
| Paradise | 70.5 | 101.7 | 48.8 | 60.0 | 60.2 |
| Rockstar | 63.2 | 91.3 | 45.1 | 46.6 | 59.5 |
| WESTBRED | | | | | |
| WB4401 | 67.2 | 97.1 | 47.0 | 49.5 | 57.0 |
| WB4422 | 80.4 | 116.0 | 53.0 | -- | 61.1 |
| WB4445CLP | 83.2 | 120.1 | -- | -- | 60.9 |
| WB4523 | 60.0 | 86.7 | 43.9 | 45.1 | 58.1 |
| WB4699 | 74.6 | 107.7 | 50.2 | 50.0 | 59.7 |
| AVERAGE | 69.3 | 100.0 | 49.1 | 51.1 | 59.7 |
| CV (%) | 6.1 | 6.1 | -- | -- | 0.7 |
| LSD (0.05)* | 8.3 | 12.0 | -- | -- | 0.7 |

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

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

| 2023-2024 Season | Wellington |
|---------------------------------|------------|
| Date Planted | 10/23/2023 |
| Previous Crop | wheat |
| Primary Tillage | no till |
| Date Harvested | 6/11/2024 |
| Seasonal precipitation (inches) | 16.46 |
| Normal precipitation (inches) | 20.76 |

Table 9. 2024 WEST CENTRAL Kansas dryland winter wheat performance test

| Brand / Name | RS ¹ | LA ² | SJ ³ | Av. | RS | LA | SJ | Av. | RS | LA | SJ | Av. |
|--------------------|-----------------|-----------------|-----------------|------|-------------------|-------|----|-------|---------------------|------|----|------|
| | yield (bu/a) | | | | % of test average | | | | test weight (lb/bu) | | | |
| AGRIPRO | | | | | | | | | | | | |
| AP PROLIFIC | 41.6 | 33.2 | -- | 37.4 | 79.2 | 85.3 | -- | 82.3 | 56.9 | 55.8 | -- | 56.4 |
| AP Sunbird | 59.1 | 47.0 | -- | 53.0 | 112.6 | 120.7 | -- | 116.6 | 58.2 | 59.3 | -- | 58.7 |
| AP24 AX | 57.1 | 41.4 | -- | 49.3 | 108.8 | 106.4 | -- | 107.6 | 56.0 | 55.4 | -- | 55.7 |
| Bigfoot | 56.2 | 39.5 | -- | 47.9 | 107.1 | 101.4 | -- | 104.3 | 57.6 | 57.9 | -- | 57.7 |
| Roadrunner | 52.7 | 37.0 | -- | 44.9 | 100.4 | 95.2 | -- | 97.8 | 55.0 | 53.9 | -- | 54.5 |
| SY Wolverine | 56.3 | 45.6 | -- | 51.0 | 107.3 | 117.3 | -- | 112.3 | 57.3 | 57.9 | -- | 57.6 |
| AGSECO | | | | | | | | | | | | |
| AG Golden | 52.4 | 39.5 | -- | 45.9 | 99.9 | 101.4 | -- | 100.6 | 55.9 | 54.4 | -- | 55.1 |
| ARMOR | | | | | | | | | | | | |
| AR Iron Eagle 22AX | 52.8 | 41.3 | -- | 47.0 | 100.5 | 106.1 | -- | 103.3 | 58.0 | 59.0 | -- | 58.5 |
| CROPLAN | | | | | | | | | | | | |
| CP7017AX | 56.8 | 38.7 | -- | 47.8 | 108.3 | 99.5 | -- | 103.9 | 58.2 | 58.3 | -- | 58.2 |
| CP7220 | 55.3 | 34.2 | -- | 44.8 | 105.4 | 88.0 | -- | 96.7 | 58.0 | 58.6 | -- | 58.3 |
| CP7266AX | 37.7 | 27.5 | -- | 32.6 | 71.9 | 70.7 | -- | 71.3 | 56.9 | 56.8 | -- | 56.9 |
| CP7869 | 50.1 | 40.4 | -- | 45.3 | 95.5 | 103.9 | -- | 99.7 | 57.5 | 58.1 | -- | 57.8 |
| CP7909 | 45.5 | 36.0 | -- | 40.8 | 86.7 | 92.6 | -- | 89.7 | 57.2 | 55.5 | -- | 56.4 |
| KWA | | | | | | | | | | | | |
| KS Bill Snyder | 52.8 | 37.3 | -- | 45.1 | 100.6 | 95.9 | -- | 98.2 | 58.3 | 44.2 | -- | 51.3 |
| KS Mako | 50.5 | 40.8 | -- | 45.6 | 96.2 | 104.9 | -- | 100.5 | 59.2 | 59.3 | -- | 59.3 |
| KS Providence | 56.0 | 35.7 | -- | 45.9 | 106.7 | 91.7 | -- | 99.2 | 57.5 | 55.8 | -- | 56.7 |
| KS Territory | 60.1 | 38.1 | -- | 49.1 | 114.4 | 97.8 | -- | 106.1 | 58.4 | 58.9 | -- | 58.7 |
| KS Western Star | 57.8 | 37.6 | -- | 47.7 | 110.1 | 96.5 | -- | 103.3 | 58.6 | 58.7 | -- | 58.6 |
| LIMAGRAIN | | | | | | | | | | | | |
| LCS Atomic AX | 48.2 | 42.8 | -- | 45.5 | 91.9 | 110.0 | -- | 101.0 | 56.7 | 58.6 | -- | 57.7 |
| LCS Galloway AX | 48.8 | 35.5 | -- | 42.1 | 93.0 | 91.1 | -- | 92.1 | 57.7 | 56.8 | -- | 57.2 |
| LCS Helix AX | 49.4 | 33.0 | -- | 41.2 | 94.0 | 84.9 | -- | 89.5 | 58.8 | 59.6 | -- | 59.2 |
| LCS Julep | 44.8 | 34.8 | -- | 39.8 | 85.3 | 89.3 | -- | 87.3 | 56.3 | 56.8 | -- | 56.6 |
| LCS Radar | 48.4 | 33.9 | -- | 41.1 | 92.2 | 87.1 | -- | 89.6 | 57.5 | 56.1 | -- | 56.8 |
| LCS Runner | 45.8 | 44.7 | -- | 45.3 | 87.2 | 115.0 | -- | 101.1 | 56.9 | 58.7 | -- | 57.8 |
| LCS Steel AX | 56.0 | 44.1 | -- | 50.1 | 106.8 | 113.4 | -- | 110.1 | 56.6 | 55.9 | -- | 56.2 |
| LCS Warbird AX | 52.1 | 39.5 | -- | 45.8 | 99.2 | 101.4 | -- | 100.3 | 58.4 | 58.0 | -- | 58.2 |
| OGI | | | | | | | | | | | | |
| Doublestop CL+ | 40.1 | 35.3 | -- | 37.7 | 76.4 | 90.6 | -- | 83.5 | 55.7 | 58.5 | -- | 57.1 |
| High Cotton | 54.1 | 33.4 | -- | 43.8 | 103.1 | 85.8 | -- | 94.5 | 57.9 | 56.4 | -- | 57.2 |
| Paradox | 53.1 | 32.9 | -- | 43.0 | 101.1 | 84.5 | -- | 92.8 | 54.9 | 52.3 | -- | 53.6 |
| Showdown | 55.5 | 45.9 | -- | 50.7 | 105.8 | 117.9 | -- | 111.8 | 57.4 | 57.5 | -- | 57.4 |
| PLAINSGOLD | | | | | | | | | | | | |
| Canvas | 58.6 | 39.3 | -- | 48.9 | 111.6 | 100.9 | -- | 106.3 | 57.5 | 58.6 | -- | 58.0 |
| CO18035RA | 58.0 | 43.7 | -- | 50.9 | 110.6 | 112.2 | -- | 111.4 | 57.5 | 56.5 | -- | 57.0 |
| CO18D297R | 54.2 | 37.1 | -- | 45.6 | 103.2 | 95.3 | -- | 99.3 | 57.4 | 57.3 | -- | 57.4 |
| Crescent AX | 59.1 | 41.1 | -- | 50.1 | 112.5 | 105.5 | -- | 109.0 | 58.7 | 58.2 | -- | 58.4 |
| Kivari AX | 63.0 | 43.6 | -- | 53.3 | 119.9 | 112.1 | -- | 116.0 | 56.4 | 55.8 | -- | 56.1 |
| POLANSKY | | | | | | | | | | | | |
| Golden Hawk | 54.0 | 38.2 | -- | 46.1 | 103.0 | 98.3 | -- | 100.6 | 57.1 | 55.0 | -- | 56.0 |
| High Country | 49.9 | 45.4 | -- | 47.6 | 95.0 | 116.6 | -- | 105.8 | 57.2 | 58.9 | -- | 58.1 |
| Rockstar | 53.8 | 44.6 | -- | 49.2 | 102.6 | 114.5 | -- | 108.5 | 56.6 | 57.2 | -- | 56.9 |
| WESTBRED | | | | | | | | | | | | |
| WB4347 | 61.9 | 39.9 | -- | 50.9 | 117.8 | 102.5 | -- | 110.2 | 58.5 | 59.4 | -- | 58.9 |
| WB4401 | 57.9 | 40.3 | -- | 49.1 | 110.2 | 103.7 | -- | 107.0 | 56.4 | 58.8 | -- | 57.6 |
| WB4422 | 43.3 | 36.4 | -- | 39.9 | 82.6 | 93.6 | -- | 88.1 | 54.0 | 58.1 | -- | 56.1 |
| WB4445CLP | 42.4 | 40.9 | -- | 41.7 | 80.8 | 105.1 | -- | 93.0 | 58.2 | 58.2 | -- | 58.2 |
| WB4523 | 49.7 | 37.7 | -- | 43.7 | 94.8 | 97.0 | -- | 95.9 | 57.9 | 57.8 | -- | 57.9 |
| WB4595 | 53.6 | 40.9 | -- | 47.3 | 102.2 | 105.0 | -- | 103.6 | 57.4 | 60.3 | -- | 58.9 |
| WB4699 | 52.6 | 33.4 | -- | 43.0 | 100.1 | 85.7 | -- | 92.9 | 55.1 | 53.3 | -- | 54.2 |
| WB4792 | 55.2 | 41.1 | -- | 48.2 | 105.2 | 105.7 | -- | 105.5 | 57.2 | 58.9 | -- | 58.1 |
| AVERAGE | | | | | | | | | | | | |
| AVERAGE | 52.5 | 38.9 | -- | 45.7 | 100.0 | 100.0 | -- | 100.0 | 57.2 | 57.1 | -- | 57.1 |
| CV (%) | 7.1 | 6.1 | -- | -- | 7.1 | 6.1 | -- | -- | 0.8 | 1.5 | -- | -- |
| LSD (0.05)* | 5.7 | 4.2 | -- | -- | 10.9 | 10.8 | -- | -- | 1.1 | 2.6 | -- | -- |

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

²LA= Larned, KS, farmer's field, Pawnee County.

³SJ=St. John, KS, farmer's field, Stafford County. *Abandoned: poor stand establishment and heavy weed pressure.*

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

| 2023-2024 Season | Russell | Larned | St. John |
|---------------------------------|--------------|----------------|--------------|
| Date Planted | 10/16/2023 | 10/2/2023 | 10/24/2023 |
| Previous Crop | fallow | failed sorghum | wheat |
| Primary Tillage | conventional | no till | conventional |
| Date Harvested | 6/18/2024 | 6/18/2024 | Abandoned |
| Seasonal precipitation (inches) | 9.7 | 9.0 | 16.8 |
| Normal precipitation (inches) | 13.8 | 12.5 | 22.6 |

Table 9 continued. 2024 WEST CENTRAL Kansas dryland winter wheat performance test

WEST CENTRAL Kansas multi-year averages (2022-2024)

| Brand / Name | -RS- | | -LA- | | -SJ- |
|-------------------|------|------|----------------|------|------|
| | 2 yr | 3 yr | 2 yr | 3 yr | 3 yr |
| AGRIPRO | | | (bushels/acre) | | |
| AP BIGFOOT | 38.6 | 49.2 | 41.4 | 44.0 | 25.7 |
| SY WOLVERINE | 43.5 | 55.5 | 45.4 | 48.7 | 32.5 |
| AGSECO | | | | | |
| AG GOLDEN | 48.2 | 56.4 | 43.5 | 46.2 | -- |
| KWA | | | | | |
| KS BILL SNYDER | 39.7 | -- | 39.7 | -- | -- |
| KS MAKO | 43.1 | -- | -- | -- | -- |
| KS PROVIDENCE | 43.4 | 53.3 | -- | 40.2 | 31.8 |
| KS TERRITORY | 47.3 | 57.1 | 41.9 | 44.4 | -- |
| KS WESTERN STAR | 48.4 | 54.0 | 40.7 | -- | 29.0 |
| LIMAGRAIN | | | | | |
| LCS ATOMIC AX | 40.0 | 51.7 | 46.5 | 48.5 | 29.0 |
| LCS GALLOWAY | 41.6 | -- | 37.3 | -- | 25.9 |
| LCS HELIX AX | 37.8 | 49.0 | 39.4 | 42.7 | -- |
| LCS JULEP | 40.9 | 54.4 | 38.1 | 41.2 | 28.6 |
| LCS STEEL AX | 53.2 | 60.4 | 42.8 | 46.5 | 32.1 |
| PLAINSGOLD | | | | | |
| CANVAS | 50.6 | 58.2 | -- | 46.9 | 29.9 |
| CRESCENT AX | 42.1 | 51.6 | -- | 47.4 | 31.7 |
| KIVARI AX | 53.4 | -- | -- | 43.6 | -- |
| POLANSKY | | | | | |
| HIGH COUNTRY | 40.9 | 49.3 | 45.3 | 49.0 | -- |
| ROCK STAR | 45.0 | 54.3 | 50.6 | 49.2 | 30.5 |
| WESTBRED | | | | | |
| WB4422 | 38.9 | 54.4 | 40.9 | 43.3 | 29.0 |
| WB4595 | 42.6 | 51.6 | 40.9 | 43.2 | -- |
| WB4792 | 41.7 | 47.9 | 39.5 | 42.5 | 35.7 |
| AVERAGE | 43.9 | 53.4 | 42.1 | 45.1 | 30.1 |

Table 10. 2024 WESTERN Kansas dryland winter wheat performance test

| Brand / Name | CO ¹ | TR ² | DC ³ | Av. | CO | TR | DC | Av. | CO | TR | DC | Av. | TR | TR | DC | Av. |
|---------------------|-----------------|-----------------|-----------------|------|-------------------|-------|-------|-------|---------------------|------|------|------|------|-------------|------|------|
| | yield (bu/a) | | | | % of test average | | | | test weight (lb/bu) | | | | days | height (in) | | |
| AGRIPRO | | | | | | | | | | | | | | | | |
| Bigfoot | 59.0 | 53.7 | 84.5 | 65.7 | 90.1 | 89.0 | 96.4 | 91.8 | 54.5 | 58.9 | 54.8 | 56.1 | 138 | 26.4 | 32.4 | 29.4 |
| AP24 AX | 73.7 | 51.2 | 85.3 | 70.1 | 112.6 | 84.9 | 97.3 | 98.2 | 53.4 | 58.0 | 54.1 | 55.2 | 138 | 29.2 | 36.0 | 32.6 |
| Roadrunner | 66.2 | 60.2 | 84.5 | 70.3 | 101.1 | 99.7 | 96.3 | 99.1 | 53.9 | 58.1 | 52.7 | 54.9 | 138 | 27.4 | 34.8 | 31.1 |
| SY Wolverine | 58.6 | 74.1 | 97.9 | 76.9 | 89.6 | 122.7 | 111.6 | 108.0 | 53.2 | 58.3 | 53.5 | 55.0 | 138 | 26.4 | 32.4 | 29.4 |
| AP Sunbird | 59.9 | 62.1 | 89.2 | 70.4 | 91.5 | 102.9 | 101.7 | 98.7 | 53.7 | 59.5 | 54.6 | 55.9 | 137 | 27.4 | 33.6 | 30.5 |
| AGSECO | | | | | | | | | | | | | | | | |
| AG Golden | 67.0 | 68.5 | 75.5 | 70.3 | 102.4 | 113.4 | 86.1 | 100.6 | 52.7 | 57.9 | 51.3 | 54.0 | 139 | 25.4 | 30.8 | 28.1 |
| KWA | | | | | | | | | | | | | | | | |
| (W) Joe | 64.7 | 52.4 | 92.2 | 69.8 | 98.8 | 86.8 | 105.2 | 96.9 | 55.7 | 58.5 | 54.8 | 56.4 | 138 | 28.0 | 37.8 | 32.9 |
| KS Big Bow | 67.3 | 70.3 | 84.0 | 73.9 | 102.8 | 116.4 | 95.8 | 105.0 | 56.1 | 58.4 | 53.6 | 56.0 | 136 | 28.2 | 35.0 | 31.6 |
| KS Bill Snyder | 76.6 | 61.9 | 83.5 | 74.0 | 117.0 | 102.5 | 95.2 | 104.9 | 56.2 | 58.9 | 53.5 | 56.2 | 139 | 24.0 | 32.6 | 28.3 |
| KS Dallas | 65.7 | 61.1 | 94.0 | 73.6 | 100.4 | 101.2 | 107.2 | 102.9 | 56.6 | 59.0 | 55.8 | 57.1 | 138 | 26.2 | 33.6 | 29.9 |
| KS Hamilton | 62.9 | 55.9 | 93.5 | 70.8 | 96.1 | 92.5 | 106.7 | 98.4 | 55.5 | 57.9 | 54.6 | 56.0 | 138 | 25.0 | 33.4 | 29.2 |
| KS Mako | 66.9 | 59.5 | 98.1 | 74.8 | 102.2 | 98.5 | 111.9 | 104.2 | 56.1 | 59.6 | 55.6 | 57.1 | 138 | 26.4 | 32.6 | 29.5 |
| KS Providence | 69.1 | 67.3 | 114.0 | 83.5 | 105.6 | 111.5 | 130.0 | 115.7 | 54.8 | 58.3 | 53.9 | 55.7 | 139 | 27.2 | 35.0 | 31.1 |
| KS Territory | 64.9 | 68.8 | 91.1 | 74.9 | 99.1 | 114.0 | 103.9 | 105.6 | 53.8 | 57.9 | 55.0 | 55.6 | 139 | 26.6 | 34.4 | 30.5 |
| KS Western Star | 65.5 | 60.2 | 86.7 | 70.8 | 100.0 | 99.7 | 98.9 | 99.5 | 56.8 | 59.5 | 56.3 | 57.5 | 137 | 27.0 | 34.0 | 30.5 |
| LIMAGRAIN | | | | | | | | | | | | | | | | |
| LCS Atomic AX | 71.7 | 52.0 | 87.7 | 70.5 | 109.6 | 86.1 | 100.1 | 98.6 | 56.4 | 59.4 | 56.7 | 57.5 | 132 | 26.2 | 33.4 | 29.8 |
| LCS Helix AX | 66.2 | 58.2 | 78.2 | 67.5 | 101.2 | 96.4 | 89.2 | 95.6 | 57.0 | 59.6 | 57.0 | 57.8 | 138 | 26.6 | 31.8 | 29.2 |
| LCS Steel AX | 62.0 | 59.6 | 83.5 | 68.4 | 94.7 | 98.7 | 95.3 | 96.3 | 53.7 | 58.6 | 54.7 | 55.6 | 139 | 28.4 | 37.8 | 33.1 |
| LCS Radar | 67.3 | 50.9 | 94.4 | 70.8 | 102.8 | 84.3 | 107.7 | 98.2 | 54.9 | 58.1 | 54.9 | 56.0 | 139 | 27.0 | 33.4 | 30.2 |
| LCS Julep | 60.9 | 55.2 | 77.7 | 64.6 | 93.1 | 91.4 | 88.6 | 91.0 | 56.0 | 59.4 | 53.7 | 56.4 | 139 | 27.0 | 33.8 | 30.4 |
| LCS White Lightning | 63.9 | 50.7 | 87.7 | 67.5 | 97.7 | 84.0 | 100.1 | 93.9 | 55.5 | 59.1 | 54.9 | 56.5 | 138 | 26.2 | 34.4 | 30.3 |
| OGI | | | | | | | | | | | | | | | | |
| Showdown | 72.2 | 54.3 | 96.4 | 74.3 | 110.4 | 89.9 | 110.0 | 103.4 | 54.9 | 58.6 | 53.9 | 55.8 | 137 | 29.0 | 36.4 | 32.7 |
| Breakthrough | 51.6 | 56.4 | 82.2 | 63.4 | 78.8 | 93.4 | 93.8 | 88.7 | 54.0 | 59.2 | 55.3 | 56.2 | 138 | 25.4 | 34.0 | 29.7 |
| PLAINSGOLD | | | | | | | | | | | | | | | | |
| Canvas | 65.9 | 65.9 | 81.3 | 71.0 | 100.7 | 109.1 | 92.7 | 100.9 | 55.0 | 58.9 | 54.5 | 56.1 | 138 | 26.8 | 33.6 | 30.2 |
| Guardian | 63.9 | 62.8 | 87.9 | 71.6 | 97.7 | 104.1 | 100.3 | 100.7 | 56.1 | 59.3 | 55.1 | 56.8 | 139 | 28.0 | 36.4 | 32.2 |
| Whistler | 66.1 | 76.8 | 88.2 | 77.0 | 101.0 | 127.2 | 100.6 | 109.6 | 53.1 | 57.8 | 53.8 | 54.9 | 139 | 26.6 | 38.0 | 32.3 |
| Langin | 80.3 | 54.2 | 88.5 | 74.3 | 122.7 | 89.8 | 101.0 | 104.5 | 55.4 | 58.9 | 54.8 | 56.4 | 135 | 24.2 | 33.4 | 28.8 |
| POLANSKY | | | | | | | | | | | | | | | | |
| Rockstar | 64.9 | 64.0 | 84.4 | 71.1 | 99.2 | 106.0 | 96.2 | 100.5 | 54.3 | 58.1 | 51.3 | 54.6 | 140 | 26.8 | 34.2 | 30.5 |
| High Country | 58.7 | 58.8 | 88.6 | 68.7 | 89.7 | 97.4 | 101.1 | 96.1 | 55.4 | 58.6 | 56.3 | 56.8 | 136 | 26.4 | 32.8 | 29.6 |
| Golden Hawk | 61.3 | 66.4 | 97.8 | 75.2 | 93.6 | 110.0 | 111.6 | 105.1 | 54.0 | 58.5 | 53.6 | 55.4 | 139 | 26.8 | 33.0 | 29.9 |
| WATLEY | | | | | | | | | | | | | | | | |
| TAM 115 | 71.2 | 57.6 | 83.0 | 70.6 | 108.8 | 95.3 | 94.7 | 99.6 | 56.8 | 59.9 | 55.9 | 57.6 | 138 | 26.6 | 30.6 | 28.6 |
| TAM 204 | 63.2 | 56.6 | 77.0 | 65.6 | 96.6 | 93.7 | 87.9 | 92.7 | 56.8 | 60.4 | 54.7 | 57.3 | 141 | 28.8 | 31.8 | 30.3 |
| WESTBRED | | | | | | | | | | | | | | | | |
| WB4347 | 75.7 | 65.0 | 92.4 | 77.7 | 115.6 | 107.7 | 105.5 | 109.6 | 57.2 | 58.1 | 57.1 | 57.5 | 139 | 23.4 | 33.4 | 28.4 |
| WB4422 | 59.4 | 48.3 | 91.9 | 66.5 | 90.7 | 80.0 | 104.8 | 91.8 | 54.4 | 59.3 | 55.5 | 56.4 | 139 | 27.4 | 35.6 | 31.5 |
| WB4445CLP | 69.2 | 62.6 | 96.4 | 76.1 | 105.8 | 103.7 | 110.0 | 106.5 | 56.4 | 57.5 | 55.9 | 56.6 | 140 | 24.8 | 33.4 | 29.1 |
| WB4595 | 61.3 | 64.0 | 79.5 | 68.3 | 93.6 | 106.0 | 90.7 | 96.8 | 56.7 | 60.4 | 53.9 | 57.0 | 139 | 28.0 | 33.0 | 30.5 |
| WB4792 | 56.7 | 66.4 | 65.0 | 62.7 | 86.6 | 110.0 | 74.1 | 90.3 | 56.1 | 59.2 | 51.2 | 55.5 | 140 | 28.2 | 33.4 | 30.8 |
| AVERAGE | 65.4 | 60.4 | 87.7 | 71.2 | 100.0 | 100.0 | 100.0 | 100.0 | 55.2 | 58.8 | 54.6 | 56.2 | 138 | 26.7 | 33.9 | 30.3 |
| CV (%) | 7.7 | 6.2 | 8.3 | -- | 7.7 | 6.2 | 8.3 | -- | 0.7 | 0.7 | 1.2 | -- | 0.9 | 1.9 | 1.7 | -- |
| LSD (0.05) | 7.6 | 6.7 | 8.3 | -- | 10.8 | 11.1 | 9.5 | -- | 1.3 | 0.7 | 1.4 | -- | 1.5 | 1.3 | 1.7 | -- |

¹CO=Colby, KS, Solomon Creek Farms, Mike and Tanner Brown, cooperators.

²TR=Tribune, KS, Southwest Agricultural Research Center, Greeley County.

³DC=Decatur County, KS, Gayle and Denton Haag, cooperators.

⁴HG=Hugoton, KS, farmer's field, Stevens County. *Abandoned: drought and hail damage.*

⁵GC=Garden City, KS, Southwest Agricultural Research Center, Finney County. *Abandoned: high variability due to severe weather before harvest.*

* Yields must differ by more than the LSD value to be considered statistically different. (W)=white wheat variety.

| 2023-2024 Season | Colby | Tribune | Decatur |
|---------------------------------|-----------------------|------------------------|------------------------------|
| Date Planted | 10/9/2023 | 9/27/2023 | 10/16/2023 |
| Previous Crop | fallow | fallow | fallow |
| Primary Tillage | no till | no till | no till |
| Fertility | 30-40-0 lbs/a N, P, K | 112-40-0 lbs/a N, P, K | 130-73-0-43 lbs/a N, P, K, S |
| Date Harvested | 7/17/2024 | 7/12/2024 | 7/18/2024 |
| Seasonal precipitation (inches) | 10.7 | 12.0 | 18.3 |
| Normal precipitation (inches) | 14.9 | 14.5 | 20.5 |

WESTERN DRYLAND multi-year averages (2022-2024)

| Brand / Name | -CO- | | -TR- | | -DC- | |
|----------------|------|------|------|------|------|------|
| | 2 yr | 3 yr | 2 yr | 3 yr | 2 yr | 3 yr |
| AGRIPRO | | | | | | |
| AP BIGFOOT | 56.6 | 54.8 | 46.5 | -- | -- | 68.3 |
| ROADRUNNER | 58.0 | 56.5 | 39.0 | -- | -- | 70.0 |
| SY WOLVERINE | 50.4 | 51.3 | 53.3 | -- | -- | 77.7 |
| AGSECO | | | | | | |
| AG GOLDEN | 61.7 | 57.1 | 49.6 | -- | -- | 63.0 |

Table 10 continued. 2024 WESTERN Kansas dryland winter wheat performance test

| Brand / Name | -CO- | | -TR- | | -DC- | |
|-------------------|----------------|------|------|------|------|------|
| | 2 yr | 3 yr | 2 yr | 3 yr | 2 yr | 3 yr |
| | (bushels/acre) | | | | | |
| KWA | | | | | | |
| KS BIG BOW | 62.8 | -- | 57.3 | -- | -- | -- |
| KS DALLAS | 61.0 | 60.7 | 47.5 | -- | -- | 79.2 |
| KS HAMILTON | 62.0 | 60.8 | 43.0 | -- | -- | 73.7 |
| KS MAKO | 66.8 | -- | 49.5 | -- | -- | -- |
| KS PROVIDENCE | 65.3 | 59.5 | 49.5 | -- | -- | 90.6 |
| KS TERRITORY | 63.4 | 60.5 | 53.2 | -- | -- | 73.8 |
| KS WESTERN STAR | 65.0 | 57.9 | 52.4 | -- | -- | 74.0 |
| LIMAGRAIN | | | | | | |
| LCS ATOMIC AX | 64.5 | 61.1 | 42.5 | -- | -- | 73.6 |
| LCS HELIX AX | 56.5 | 56.7 | 43.9 | -- | -- | 64.6 |
| LCS JULEP | 60.6 | 57.8 | 42.5 | -- | -- | 64.7 |
| LCS STEEL AX | 53.6 | 53.9 | 42.3 | | | 68.9 |
| OGI | | | | | | |
| BREAKTHROUGH | 49.2 | -- | 40.4 | -- | -- | -- |
| PLAINSGOLD | | | | | | |
| CANVAS | 59.3 | 62.3 | 47.5 | -- | -- | 72.1 |
| GUARDIAN | 61.7 | 61.3 | 45.8 | -- | -- | 72.9 |
| WHISTLER | 60.4 | 62.8 | 51.2 | -- | -- | 77.2 |
| POLANSKY | | | | | | |
| HIGH COUNTRY | | 59.4 | 47.6 | -- | -- | 74.5 |
| ROCKSTAR | 64.8 | 61.4 | 54.6 | -- | -- | 71.0 |
| WESTBRED | | | | | | |
| WB4422 | 54.1 | 57.0 | 41.8 | -- | -- | 76.4 |
| WB4595 | 59.1 | 58.2 | 48.2 | -- | -- | 65.6 |
| WB4792 | 52.1 | 53.3 | 45.6 | -- | -- | 62.0 |
| AVERAGE | 59.5 | 58.3 | 47.3 | -- | -- | 72.1 |

Table 11. 2024 WESTERN Kansas irrigated winter wheat performance test

| Brand / Name | CO ¹ | GC ² | HG ³ | Av. | CO | GC | HG | Av. | CO | GC | HG | Av. | CO | CO |
|---------------------|-----------------|-----------------|-----------------|-------|-------------------|-------|-------|-------|------------|------|------|------|---------|---------------|
| | yield (bu/a) | | | | % of test average | | | | tw (lb/bu) | | | | ht (in) | stripe rust** |
| AGRIPRO | | | | | | | | | | | | | | |
| AP PROLIFIC | 78.0 | 100.3 | 128.3 | 102.2 | 92.6 | 102.1 | 94.6 | 96.4 | 54.6 | 58.1 | 56.7 | 56.5 | 33.4 | 7.2 |
| AP Sunbird | 88.1 | 91.0 | 157.2 | 112.1 | 104.7 | 92.6 | 116.0 | 104.4 | 54.8 | 53.0 | 56.5 | 54.8 | 32.6 | 6.8 |
| Roadrunner | 89.3 | 105.0 | 137.1 | 110.5 | 106.1 | 106.8 | 101.2 | 104.7 | 52.8 | 56.8 | 56.1 | 55.2 | 33.6 | 6.2 |
| SY Wolverine | 89.1 | 103.9 | 157.8 | 116.9 | 105.8 | 105.7 | 116.4 | 109.3 | 52.6 | 50.3 | 52.9 | 51.9 | 35.0 | 5.8 |
| AGSECO | | | | | | | | | | | | | | |
| AG Golden | 91.3 | 113.9 | 144.9 | 116.7 | 108.5 | 115.9 | 106.9 | 110.4 | 54.2 | 54.1 | 55.6 | 54.6 | 33.0 | 6.2 |
| KWA | | | | | | | | | | | | | | |
| KS Big Bow | 86.6 | 111.1 | 156.0 | 117.9 | 102.9 | 113.1 | 115.1 | 110.4 | 53.9 | 57.6 | 57.3 | 56.2 | 36.6 | 4.0 |
| KS Bill Snyder | 90.2 | 116.4 | 139.0 | 115.2 | 107.2 | 118.5 | 102.5 | 109.4 | 54.7 | 56.8 | 57.6 | 56.4 | 32.8 | 4.8 |
| KS Mako | 83.7 | 100.5 | 142.7 | 109.0 | 99.4 | 102.3 | 105.3 | 102.3 | 54.7 | 57.0 | 57.9 | 56.5 | 33.4 | 4.8 |
| KS Providence | 84.9 | 102.5 | 166.9 | 118.1 | 100.8 | 104.3 | 123.1 | 109.4 | 55.1 | 55.6 | 56.6 | 55.8 | 33.4 | 5.2 |
| KS Territory | 87.5 | 90.1 | 141.2 | 106.2 | 103.9 | 91.7 | 104.1 | 99.9 | 54.0 | 54.4 | 57.9 | 55.4 | 34.8 | 5.8 |
| LIMAGRAIN | | | | | | | | | | | | | | |
| LCS Atomic AX | 84.6 | 88.9 | 133.8 | 102.4 | 100.5 | 90.5 | 98.7 | 96.6 | 55.7 | 57.3 | 58.9 | 57.3 | 33.0 | 3.8 |
| LCS Galloway AX | 76.0 | 85.5 | 132.9 | 98.1 | 90.3 | 87.0 | 98.0 | 91.8 | 54.3 | 57.1 | 56.5 | 56.0 | 35.6 | 4.8 |
| LCS Helix AX | 88.7 | 119.1 | 153.1 | 120.3 | 105.4 | 121.2 | 113.0 | 113.2 | 55.7 | 58.9 | 58.6 | 57.7 | 33.2 | 6.6 |
| LCS Julep | 82.1 | 72.2 | 114.5 | 89.6 | 97.5 | 73.5 | 84.4 | 85.2 | 53.9 | 52.9 | 57.4 | 54.7 | 34.6 | 5.0 |
| LCS Radar | 75.1 | 97.2 | 133.1 | 101.8 | 89.2 | 98.9 | 98.2 | 95.4 | 53.9 | 57.6 | 56.7 | 56.0 | 33.0 | 7.0 |
| LCS Steel AX | 73.8 | 88.4 | 135.4 | 99.2 | 87.6 | 90.0 | 99.9 | 92.5 | 53.6 | 54.5 | 58.0 | 55.4 | 36.8 | 6.4 |
| LCS White Lightning | 75.9 | 94.3 | 90.4 | 86.9 | 90.2 | 96.0 | 66.7 | 84.3 | 52.9 | 55.8 | 56.6 | 55.1 | 34.2 | 5.4 |
| OGI | | | | | | | | | | | | | | |
| Breakthrough | 79.3 | 87.8 | 127.6 | 98.2 | 94.2 | 89.3 | 94.1 | 92.5 | 55.8 | 54.8 | 57.0 | 55.8 | 34.2 | 3.8 |
| PLAINSGOLD | | | | | | | | | | | | | | |
| Canvas | 93.9 | 105.0 | 152.8 | 117.3 | 111.6 | 106.9 | 112.7 | 110.4 | 54.9 | 56.2 | 58.3 | 56.5 | 32.4 | 5.2 |
| CO18D297R | 86.4 | 93.6 | 147.1 | 109.0 | 102.6 | 95.3 | 108.5 | 102.1 | 54.3 | 58.5 | 57.9 | 56.9 | 37.0 | 5.6 |
| POLANSKY | | | | | | | | | | | | | | |
| Golden Hawk | 98.4 | 107.2 | 136.0 | 113.9 | 116.8 | 109.1 | 100.3 | 108.8 | 53.5 | 54.7 | 56.1 | 54.8 | 34.4 | 5.6 |
| High Country | 82.1 | 95.8 | 164.1 | 114.0 | 97.5 | 97.5 | 121.1 | 105.4 | 54.8 | 56.7 | 57.5 | 56.3 | 34.2 | 5.6 |
| Rockstar | 81.7 | 102.8 | -- | 92.3 | 97.0 | 104.6 | -- | 100.8 | 53.5 | 57.7 | -- | 56.1 | 34.6 | 5.8 |
| WATLEY | | | | | | | | | | | | | | |
| TAM 115 | 90.9 | 89.4 | 113.5 | 97.9 | 108.0 | 91.0 | 83.8 | 94.2 | 55.8 | 55.8 | 59.3 | 57.0 | 34.0 | 6.0 |
| TAM 204 | 87.8 | 93.7 | 116.5 | 99.4 | 104.3 | 95.4 | 86.0 | 95.2 | 55.5 | 57.0 | 58.3 | 56.9 | 32.4 | 6.6 |
| WESTBRED | | | | | | | | | | | | | | |
| WB4422 | 69.0 | 92.3 | 115.0 | 92.1 | 82.0 | 93.9 | 84.8 | 86.9 | 53.9 | 57.0 | 56.8 | 55.9 | 34.8 | 5.4 |
| WB4523 | 92.4 | 108.6 | 138.6 | 113.2 | 109.7 | 110.5 | 102.3 | 107.5 | 54.4 | 56.6 | 57.3 | 56.1 | 29.8 | 4.4 |
| WB4699 | 70.4 | 94.5 | 129.5 | 98.1 | 83.6 | 96.2 | 95.5 | 91.8 | 52.2 | 54.1 | 55.7 | 54.0 | 30.6 | 4.6 |
| AVERAGE | 84.2 | 98.2 | 135.6 | 106.0 | 100.0 | 100.0 | 100.0 | 100.0 | 54.3 | 56.0 | 56.7 | 55.6 | 33.8 | 5.5 |
| CV (%) | 5.9 | 9.8 | 10.9 | -- | 5.9 | 9.8 | 10.9 | -- | 1.1 | 2.1 | 2.2 | -- | 1.2 | -- |
| LSD (0.05)* | 7.2 | 10.3 | 19.0 | -- | 8.5 | 10.5 | 14.0 | -- | 1.0 | 1.9 | 2.8 | -- | 1.6 | -- |

¹CO=Colby, KS, Northwest Agricultural Research Center, Thomas County.

²GC=Garden City, KS, Southwest Agricultural Research Center, Finney County.

³HG=Hugoton, KS, farmer's field, Stevens County.

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

**Stripe rust ratings provided by Erick DeWolf, KSU Plant Pathology. 1=resistant plants; 9=susceptible.

| 2023-2024 Season | Colby | Garden City | Hugoton |
|---------------------------------|------------|--------------|--------------|
| Date Planted | 10/19/2023 | 10/11/2023 | 10/9/2023 |
| Previous Crop | sorghum | fallow | failed wheat |
| Primary Tillage | reduced | conventional | no till |
| Irrigated | pivot | pivot | pivot |
| Date Harvested | 7/18/2024 | 7/5/2024 | 7/1/2024 |
| Seasonal precipitation (inches) | 10.7 | 9.7 | 8.9 |
| Normal precipitation (inches) | 12.9 | 12.8 | 12.2 |

WESTERN irrigated multi-year averages (2022-2024)

| Brand / Name | -CO- | | -GC- | | -HG- | |
|----------------|----------------|------|------|-------|------|------|
| | 3 yr | 2 yr | 3 yr | 3 yr | 3 yr | 3 yr |
| | (bushels/acre) | | | | | |
| AGRIPRO | | | | | | |
| AP PROLIFIC | 68.4 | 92.0 | 87.2 | 119.3 | | |
| ROADRUNNER | 73.6 | 85.3 | 88.4 | 117.8 | | |

Table 11 continued. 2024 WESTERN Kansas irrigated winter wheat performance test**WESTERN irrigated multi-year averages (2022-2024)**

| Brand / Name | -CO- | -GC- | | -HG- |
|-------------------|----------------|------|------|-------|
| | 3 yr | 2 yr | 3 yr | 3 yr |
| | (bushels/acre) | | | |
| AGRIPRO | | | | |
| SY WOLVERINE | 78.7 | 91.0 | 75.4 | 136.8 |
| AGSECO | | | | |
| AG GOLDEN | 74.3 | 94.7 | 95.3 | 131.8 |
| KWA | | | | |
| KS BIG BOW | -- | 95.1 | -- | -- |
| KS BILL SNYDER | -- | 95.5 | -- | -- |
| KS MAKO | -- | 84.4 | -- | -- |
| KS PROVIDENCE | 71.2 | 93.6 | 82.1 | 135.4 |
| KS TERRITORY | -- | 85.2 | -- | -- |
| LIMAGRAIN | | | | |
| LCS ATOMIC AX | 80.3 | 85.8 | 83.1 | 115.2 |
| LCS GALLOWAY | -- | 78.4 | -- | -- |
| LCS HELIX AX | 72.2 | 96.9 | 95.5 | 141.0 |
| LCS JULEP | 64.1 | 70.3 | 57.0 | 112.9 |
| LCS STEEL AX | 68.4 | 82.6 | 76.4 | 121.3 |
| OGI | | | | |
| BREAKTHROUGH | 70.1 | 76.8 | 64.2 | 119.3 |
| PLAINSGOLD | | | | |
| CANVAS | 77.7 | 89.4 | 83.1 | 140.6 |
| POLANSKY | | | | |
| HIGH COUNTRY | 75.5 | 84.4 | 70.3 | 140.3 |
| ROCKSTAR | 67.3 | 89.5 | 90.7 | 104.0 |
| WATLEY | | | | |
| TAM 204 | 70.8 | 78.2 | 76.1 | 105.8 |
| WESTBRED | | | | |
| WB4422 | 67.6 | 82.2 | 90.9 | 116.5 |
| WB4523 | -- | 91.5 | -- | -- |
| WB4699 | 69.4 | 85.1 | 85.9 | 115.9 |
| AVERAGE | 71.9 | 86.7 | 81.3 | 123.4 |

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/outreach-and-services/crop-performance-tests

Excerpts from the
University Research Policy Agreement with Cooperating Seed Companies

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.

I understand that all results from Kansas Crop Performance Tests belong to the University and the public and shall be controlled by the University so as 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; 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 1186, '2024 Kansas Performance Tests with Winter Wheat Varieties,' or the Kansas Crop Performance Test website, agronomy.k-state.edu/outreach-and-services/crop-performance-tests, for details. Endorsement or recommendation by Kansas State University is not implied."

Contributors

Main Station, Manhattan

Jane Lingenfelter, Assistant Agronomist
Kelsey Andersen Onofre, Extension Plant Pathology
Chip Redmond, Kansas Mesonet Manager
Romulo Lollato, Extension Agronomy Wheat Specialist
Jeff Whitworth, Extension Entomology

Experiment Fields

Eric Adee, Ottawa
Scott Dooley, Scandia
Darren Hibdon, Ottawa
Michael Larson, Scandia
Keith Thompson, Hutchinson

Research Centers

Garth Blackburn, Parsons
Amanda Burnett, Tribune
Lucas Haag, Colby and Tribune
Gretchen Sassenrath, Parsons

Cooperators

Mike and Tanner Brown, Colby
Marty Fletchall, Beloit
Gayle and Denton Haag,
Decatur County
Brian Yutzy, Hutchinson

Copyright 2024 Kansas State University Agricultural Experiment Station and Cooperative Extension Service. Contents of this publication may be freely reproduced for educational purposes. All other rights reserved. In each case, give credit to the author(s), 2024 Kansas Performance Tests with Winter Wheat Varieties, Kansas State University, August 2024, Contribution no. 25-030-S from the Kansas Agricultural Experiment Station.

Brand names appearing in this publication are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.

Publications from Kansas State University are available at:
www.ksre.ksu.edu

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

K-State Research and Extension is an equal opportunity provider and employer.

SRP 1186 August 2024