



Oklahoma Small Grains Variety Performance Tests

2023-2024

**Oklahoma Small Grains
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2023-2024

by

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Participating Seed Companies

AgriPro

Dave Abel
704 W 9th Street,
Newkirk, OK 74647
Phone: (620) 218-0848
Email: david.abel@syngenta.com
www.agriprowheat.com
Varieties: AP Bigfoot, AP Prolific, AP Roadrunner, AP Sunbird, AP 24AX, Bob Dole, SY Wolverine

AGSECO, Inc.

Steve Ahring
P.O. Box 7
Girard, KS 66743
Phone: (620) 724-6223
Email: steve@delangeseed.com www.agseco.com
Varieties: AG Golden, AG Radical

Armor by Winfield United

Todd Coulter/Ryan Moeller
500 North 1st street
Vincent, IA 50594
Phone: (765) 242-3161
Email: tgcoulter@landolakes.com
www.croplan.com
Varieties: AR Turret 25, AR Iron Eagle 22AX

CROPLAN by Winfield United

Todd Coulter/Ryan Moeller
500 North 1st street
Vincent, IA 50594
Phone: (765) 242-3161
Email: tgcoulter@landolakes.com
Email: rdmoeller@landolakes.com
www.croplan.com
Varieties: CP7017 AX, CP7869, CP722

Kansas Wheat Alliance (KWA)

Bryson Haverkamp
1990 Kimball Ave. Suite 200
Manhattan, KS 66502
Phone: (785) 320-4080
Email: kwa@kansas.net
www.kswheatalliance.org
Varieties: KS Mako, KS Providence

Limagrain Cereal Seeds (LCS)

Daniel Dall
1250 N Main St.
Benton, KS 67017
Phone: (316) 452-3505
Email: daniel.dall@limagrain.com
www.limargraincerealseeds.com
Varieties: LCS Atomic AX, LCS Galloway AX, LCS Helix AX,

LCS Julep, LCS Photon AX, LCS Radar, LCS Runner, LCS Steel AX, LCS Warbird AX

Oklahoma Genetics, Inc. (OGI)

Mark Hodges
201 South Range Road
Stillwater, OK 74074
Phone: (405) 744-4347
Email: hodgesm1@cox.net
www.okgenetics.com
Varieties: Bentley, Big Country, Breadbox, Breakthrough, Butler's Gold, Doublestop CL+, Firebox, Gallagher, Green Hammer, High Cotton, Iba, OK Corral, Paradox, Showdown, Smith's Gold, Strad CL+, Uncharted

PlainsGold

(Colorado Wheat Research Foundation)
Brad Erker/Tyler Benninghoven
4026 S. Timberline Road Suite 100
Fort Collins, CO 80525
Phone: (970) 449-6994
Email: tbenninghoven@coloradowheat.org
www.plainsgold.com
Varieties: Byrd CL Plus, Canvas, CO18035RA, Crescent AX, Kivari AX, Whistler

Watley Seeds

Andy Watley
PO Box 51
Spearman, TX 79081
Email: watleyseed@valornet.com
www.watleyseed.com
Varieties : TAM 112, TAM 115, TAM 204

WestBred-Bayer

Lance Embree/Mark Lubbers
5014 W. 1st Ave
Stillwater, OK 74074
Phone: (316) 218-2661
Email: lance.embree@bayer.com
Email: mark.lubbers@bayer.com
www.westbred.com
Varieties: WB4401, WB4422, WB4632, WB4792

Partial financial support provided by the Oklahoma Wheat Commission and the Oklahoma Wheat Research Foundation.



Oklahoma Wheat
COMMISSION

2023-2024 Wheat Crop Overview

At the time of writing this report, 2024 Oklahoma wheat production is estimated to be approximately 105 million bushels, which is about 96% greater than 2023 production and 53% higher than 2022 production (Table 1). Approximately 4.4 million acres were planted for the 2024 crop year, lower than the 2023 crop and the previous 10-year average. Number of harvested acres is estimated at 2.7 million, which is 25% higher than in 2023. The statewide average yield is projected at 39 bu/ac. This is 14 bu/ac greater than the 2023 state average and 7 bu/ac greater than the previous 10-year average.

Table 1. Oklahoma wheat production for 2021, 2022 and 2023 as estimated by USDA NASS, June 2024

	2021	2022	2023
Planted area (million acres)	4.3	4.6	4.4
Harvested area (million acres)	2.40	2.15	2.70
Yield (bushels/acre)	28	25	39
Total production (million bushels)	69	65	105

Dual-purpose wheat producers planted at the optimal time in mid-September across much of the state. The wheat intended for dual-purpose was sown in good moisture, resulting in good emergence and stand. Fall precipitation was adequate to support sufficient fall forage production, allowing producers to utilize wheat pasture for fall grazing. For grain-only producers, October rains provided adequate moisture for good wheat emergence in most areas, including the Panhandle. However, in some regions, wheat was sown later and in drier soil conditions. No significant diseases or insect issues were observed in the fall.

An arctic blast at the end of January caused leaf damage in some wheat fields but did not seem to impact yields. By February, all late-sown wheat had emerged. The moist conditions during winter promoted wheat growth and development, indicating a good yield potential. Limited rainfall in the north-central and northwest regions prevented the incorporation of topdress N application. By early April, the wheat was ahead of schedule, with the flag leaf appearing two to three weeks earlier than normal. As the month progressed, the lack of moisture reduced wheat growth and yield potential. Especially in the north-central, northwest, and Panhandle regions, the continued lack of moisture late in the spring led to the deterioration of wheat fields.

Overall, moderate temperatures and sufficient rainfall led to moderate to high fall forage production (for more information, see CR 2141 - Fall Forage Production and First Hollow Stem Date for Small Grain Varieties during the 2023-2024 Crop Year). Good soil moisture conditions in the winter accelerated plant development and accelerated the onset of first hollow stem for our region. In the forage trials, the very early genotypes reached first hollow stem during the first week of February, while most of the very late genotypes reached first hollow stem during the second week of February.

Wheat started to head by mid-April in most areas, around April 8th in southwest and south-central OK and April 14 in the north-central region. Freeze events primarily affected the north-central and northwest areas, but the damage was minimal this year. Some fields exhibited heads with discoloration (i.e., bleached) due to different types of stresses like freeze and crown/root rots. By May, the crop was stressed due to lack of water, and fields were ready to harvest by the Memorial Day weekend in southwest OK. However, rainfall occurred across the state and delayed harvest, reducing test weight accordingly. Irrigated wheat fields experienced significant delays due to rainfall at time of harvest.

Despite the relative dry conditions, widespread and significant disease pressure occurred as early as mid- to late March in southwest Oklahoma. Tan spot, *Septoria tritici* blotch, and powdery mildew were observed primarily on lower leaves, with moderate incidence and severity, though some fields showed high severity. Stripe rust was the most prevalent disease in April, reported in multiple locations across Oklahoma. Due to early stripe rust infection and the lack of all-stage resistance in most U.S. Great Plains hard winter wheat varieties, many showed susceptibility. Consequently, growers applied fungicides to manage stripe rust.

Leaf rust was first observed in the south-central and north-central regions around the last week of April to early May. However, because the infection occurred relatively late in crop development, it did not cause widespread damage to the Oklahoma wheat crop.

Stem rust was also found on a few susceptible wheat breeding lines and varieties in the north-central region in early May. Samples of the infected stem rust were sent to the USDA-ARS Cereal Disease Lab in Minnesota for race identification. The pathogen race was confirmed to be QFCSC, which has been a dominant race in the U.S. for many years.

Common root rot (caused by *Bipolaris sorokiniana*) and *Fusarium* crown/root rot were reported in multiple wheat fields where dry conditions prevailed, especially in western and north-west areas, but also in some fields in the south-central region. Infected plants were stunted and white, with discolored roots and lower stems. These plants died prematurely and produced white heads that were either sterile or filled with shriveled grain.

Toward the end of the season, black point was reported in wheat. Black point arises from stress-related reactions induced by fungi and/or environmental conditions and was favored by moisture during grain development. Black point in wheat grain can be a grading factor, as the discoloration can result in black flecks in flour milled from such grain.

In summary, this year's crop was average but much better than the previous two years of extreme drought, even in the presence of two rust diseases that lingered throughout grain development. Overall, the Oklahoma wheat crop was severely affected by lack of moisture during grain development and during two waves of stripe rust disease early and mid-season followed by leaf rust into mid-May.

Most of the state's rainfall occurred in the fall and winter, stopping during the critical period of wheat grain development, and then returning during the harvest period. Consequently, the harvest was delayed by a couple of weeks in some areas. According to the Oklahoma Wheat Commission report, grain yields averaged 40-50 bu/ac, with higher yields (60-80 bu/ac) achieved in intensively managed fields. Test weight was good at the beginning of harvest but decreased with precipitation, with values ranging from 56-64 pounds per acre. Wheat protein varied from 9%-13.5% across the state, with a state average of 11.8%.

Testing Methods and Data Interpretation

Testing Methods

Seed was packaged and planted in the same condition as delivered from the respective seed companies. Most seed was treated with an insecticide plus a fungicide, but the formulation and rate of seed treatment used was not confirmed or reported in this document.

Plots were seven rows wide with 7 ½-inch row spacing and were sown with a Great Plains no-till drill modified for cone-seeding, small-plot research. Except for dryland locations in the Panhandle, plots were planted 25 feet long and trimmed to 19 feet at harvest with the plot combine. Panhandle dryland locations were 35 feet long at planting and trimmed to 29 feet at harvest. Wheel tracks were included in the plot area for yield calculation for a total plot width of 60 inches. The experimental design for all sites was a randomized complete block with four replicates. The intensive management trials at Apache, Chickasha and Lahoma received two fungicide applications, additional topdress nitrogen application in the spring, and were planted on a seeds per acre basis at 1.2 million seeds per acre. Fungicide was applied at Feekes 6 (jointing) and Feekes 9 (flag leaf completely emerged). Additional information on product name, rate and date of application is included in the tables for the respective sites.

Plots received 5 gal/ac of 10-34-0 at planting. All variety trial locations were sown at 60 pounds per acre, except for the dual-purpose trials at El Reno and Walters, which were sown at 120 pounds per acre. Grazing intensity, nitrogen fertilization, and insect and weed control decisions were made on a location-by-location basis and reflect standard management practices for the area. In general, the spring-applied N rate was calculated for a 70 bu/ac yield goal for the standard management trials and 100 bu/ac yield goal for the intensive management trials.

Plots were harvested with a Wintersteiger Delta small plot combine. Grain weight, test weight, protein concentration, and moisture content were collected from each plot, and grain yields and protein concentration were corrected to 12% moisture content. Grain moisture at all sites was generally below 12%, and maximum and minimum grain moisture for all plots at a location typically ranged no more than 2%.

Data Interpretation

Yield, test weight and protein data for each location and regional summary were analyzed using the appropriate statistical methods. At the bottom of each table, the mean and least significant difference (LSD) values are reported. The LSD is a test statistic that aids in determining whether there is a true difference in yield, test weight and protein. In this report, one can be 95% confident that the difference between two varieties is real if the difference is greater than the LSD value. Data that is not significantly different is indicated by "NS." For example, if the LSD value is 4 bu/ac in a trial where Variety A yielded 30 bu/ac and Variety B yielded 25, then Variety A would be considered to have a statistically higher yield. However, if Variety C yielded 27 bu/ac, then Variety A and Variety C would be considered to have a similar yield. In that same example trial, there is a 5% chance that the 4 bu/ac difference between Variety A and Variety B does not truly exist, but random chance caused the 5 bushel difference. These chance factors may include differences in fertility, moisture availability and diseases. To aid in visualizing the varieties with the highest yields, test weights and proteins, values highlighted in gray do not differ statistically from the highest value within a column. The performance of a variety may vary from year to year, even at the same location. Tests over two or more years and over multiple locations more accurately predict the performance of a variety.

Performance Test Locations

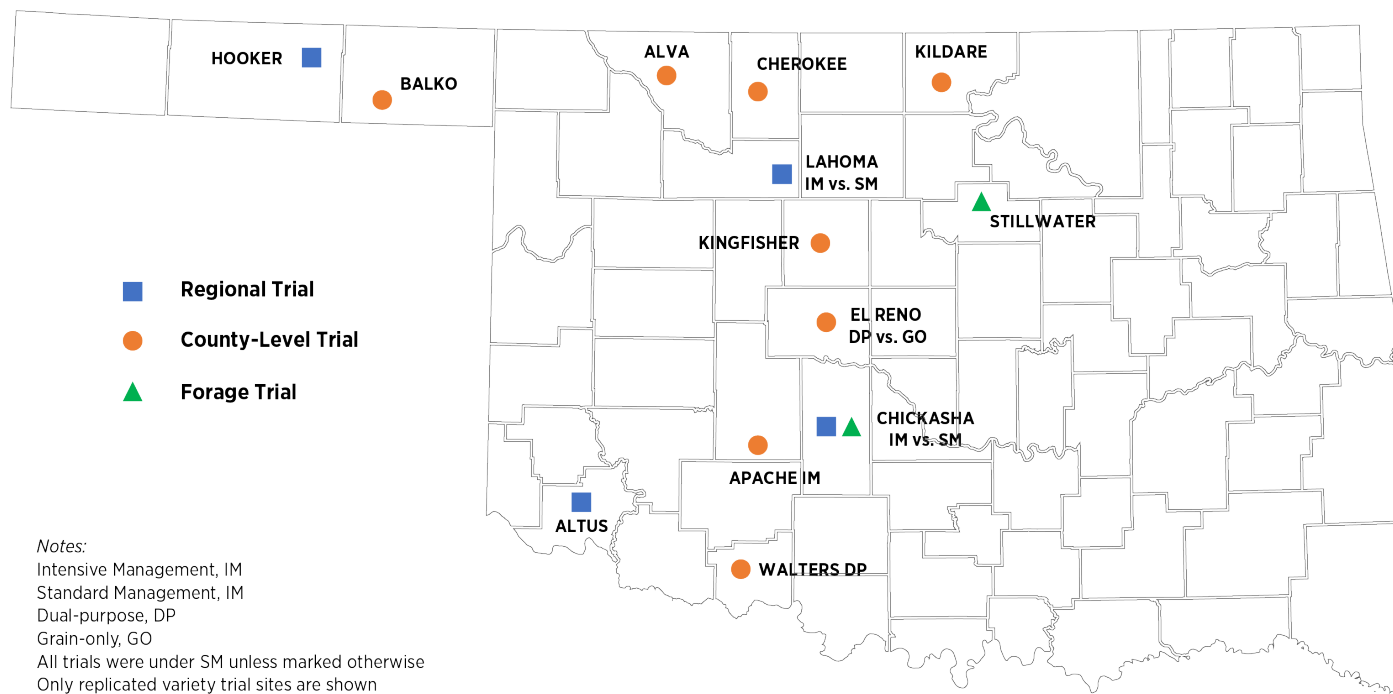



Figure 1. Performance test locations.

Additional Information on the Web

A copy of this publication as well as additional information about wheat management can be found at:

Website: wheat.okstate.edu

Blog: osuwheat.com

 @OSU_smallgrains

 @OSU Small Grains



Summary of All Individual Locations

wheat.okstate.edu								
Licensee	Variety	Altus	Alva	Apache IM	Balko	Cherokee	Chickasha	Chickasha IM
-----grain yield (bu/ac)-----								
AgriPro	AP Bigfoot	22	—	67	—	—	65	82
AgriPro	AG Prolific	—	—	—	—	49	80	84
AgriPro	AP Roadrunner	40	—	69	36	—	76	89
AgriPro	AP Sunbird	15	—	—	—	—	—	—
AgriPro	AP24 AX	34	—	—	—	—	70	83
AgriPro	Bob Dole	—	40	—	—	44	71	79
AgriPro	SY Wolverine	17	42	—	46	37	62	94
AGSECO	AG Golden	36	42	71	50	—	75	91
AGSECO	AG Radical	14	—	—	—	63	39	85
Armor	AR Iron Eagle 22AX	33	—	—	—	—	64	98
Armor	AR Turret 25	39	—	—	—	—	70	83
Croplan	CP7017AX	32	40	70	60	51	61	98
Croplan	CP7220	35	—	—	—	—	65	84
Croplan	CP7869	41	—	63	—	—	71	77
KWA	KS Mako	31	—	—	—	—	72	94
KWA	KS S Providence	44	41	63	45	52	77	76
LCS	LCS Atomic AX	34	42	60	33	29	66	79
LCS	LCS Galloway AX	29	38	60	42	—	63	76
LCS	LCS Helix AX	36	—	—	—	47	70	82
LCS	LCS Julep	12	—	—	—	—	46	85
LCS	LCS Photon AX	21	40	62	40	—	61	79
LCS	LCS Radar	38	—	—	—	—	77	91
LCS	LCS Runner	24	—	—	—	—	62	82
LCS	LCS Steel AX	23	—	—	—	45	66	93
LCS	LCS Warbird AX	45	—	—	—	—	73	74
OGI	Bentley	21	—	—	56	64	—	—
OGI	Big Country	—	—	—	—	—	66	71
OGI	Breadbox	40	40	66	28	26	83	81
OGI	Breakthrough	—	40	—	38	—	—	—
OGI	Butler's Gold	—	40	—	35	24	—	—
OGI	Butler's Gold (late-planted)	26	—	56	—	—	56	54
OGI	Doublestop CL+	36	38	60	27	41	73	70
OGI	Firebox	40	38	56	—	—	72	82
OGI	Gallagher	31	41	67	33	32	74	82
OGI	Green Hammer	34	38	59	—	50	72	73
OGI	High Cotton	43	38	70	36	44	80	90
OGI	Iba	26	38	—	22	35	—	—
OGI	Unchartered	33	—	64	—	44	79	77
OGI	OK Corral	49	45	59	34	39	—	80

OGI	Paradox	41	41	70	35	36	86	91
OGI	Showdown	45	41	66	54	68	79	95
OGI	Smith's Gold	38	40	60	34	41	69	78
OGI	Strad CL+	40	38	59	26	32	76	85
PlainsGold	Byrd CL Plus	23	—	—	—	—	57	90
PlainsGold	Canvas	38	38	75	41	60	71	89
PlainsGold	CO18035RA	31	—	—	—	—	68	88
PlainsGold	Crescent AX	33	41	—	50	46	70	75
PlainsGold	Kivari AX	24	—	70	—	—	57	82
PlainsGold	Whistler	11	—	—	—	—	42	84
Watley	TAM112	—	—	—	—	—	—	—
Watley	TAM115	—	—	—	45	—	—	—
Watley	TAM204	—	—	—	—	—	—	—
Westbred	WB4401	41	—	63	—	—	81	92
Westbred	WB4422	24	—	—	49	50	59	101
Westbred	WB4632	6	41	75	—	—	57	99
Westbred	WB4792	36	39	—	55	51	80	92
Experimentals								
OSU	OK16107133-19-4	39	39	66	—	—	82	93
OSU	OK16107133-19-3	37	—	62	—	30	76	72
OSU	OK16103083	—	—	—	—	—	—	—
OSU	OK198417C	49	—	61	39	51	79	88
OSU	OK20708	38	39	64	41	36	80	88
Mean		32	40	64	40	44	69	84
LSD (0.05)		8	2	8	10	10	9	12

Notes: Grain yield was adjusted to 12% moisture content. Shaded values are not statistically different from the highest value within a column. Em Dash "—" = data not available.



Summary of All Individual Locations

wheat.okstate.edu									
Licensee	Variety	El Reno DP	El Reno GO	Hooker	Kildare	Kingfisher	Lahoma SM	Lahoma IM	Walters DP
-----grain yield (bu/ac)-----									
AgriPro	AP Bigfoot	—	—	75	—	—	64	84	—
AgriPro	AP Prolific	32	68	—	37	49	61	69	—
AgriPro	AP Roadrunner	35	63	83	30	45	76	79	23
AgriPro	AP Sunbird	—	—	86	—	—	—	—	—
AgriPro	AP24 AX	—	—	83	—	—	77	87	—
AgriPro	Bob Dole	—	—	—	—	—	68	79	—
AgriPro	SY Wolverine	—	—	81	—	—	62	84	—
AGSECO	AG Golden	—	—	93	—	48	69	79	25
AGSECO	Ag Radical	29	59	—	28	—	57	67	20
Armor	AR Iron Eagle 22AX	—	—	81	—	—	67	68	—
Armor	AR Turret 25	—	—	88	—	—	65	75	—
Croplan	CP7017AX	—	—	81	—	35	65	82	—
Croplan	CP7220	—	—	64	—	—	58	67	—
Croplan	CP7869	—	—	88	—	—	65	75	—
KWA	KS Mako	—	—	85	—	—	64	78	—
KWA	KS Providence	31	68	77	37	49	65	76	24
LCS	LCS Atomic AX	31	64	68	32	49	65	66	21
LCS	LCS Galloway AX	36	66	78	—	—	72	75	—
LCS	LCS Helix AX	—	—	91	43	49	65	80	—
LCS	LCS Julep	31	53	80	—	—	49	59	21
LCS	LCS Photon AX	—	—	86	—	—	61	81	—
LCS	LCS Radar	—	—	90	—	—	74	80	—
LCS	LCS Runner	—	—	84	—	—	63	79	—
LCS	LCS Steel AX	—	—	90	32	—	69	87	26
LCS	LCS Warbird AX	—	—	87	—	—	72	85	—
OGI	Bentley	—	—	80	30	—	—	—	—
OGI	Big Country	34	65	—	27	54	62	70	—
OGI	Breadbox	32	67	73	28	48	70	79	25
OGI	Breakthrough	—	—	85	—	—	—	—	—
OGI	Butler's Gold	—	—	77	34	—	44	45	—
OGI	Butler's Gold (late-planted)	—	—	—	—	25	—	—	—
OGI	Doublestop CL+	34	65	68	32	49	67	64	27
OGI	Firebox	39	65	—	—	52	64	72	25
OGI	Gallagher	31	65	75	18	51	74	79	24
OGI	Green Hammer	30	64	—	37	53	55	69	23
OGI	High Cotton	42	71	74	41	55	68	76	25
OGI	Iba	—	—	78	—	—	—	—	25
OGI	OK Corral	37	66	80	37	53	68	75	—
OGI	Paradox	32	70	74	32	51	79	76	28
OGI	Showdown	42	79	88	37	51	72	81	34

OGI	Smith's Gold	38	62	65	30	47	63	68	25
OGI	Strad CL+	26	68	71	34	55	70	78	24
OGI	Uncharted	37	64	—	25	49	58	63	24
PlainsGold	Byrd CL Plus	—	—	85	—	—	67	79	—
PlainsGold	Canvas	—	—	89	42	51	76	78	27
PlainsGold	CO18035RA	—	—	80	—	—	75	85	—
PlainsGold	Crescent AX	34	70	90	41	45	63	79	14
PlainsGold	Kivari AX	30	65	85	—	—	69	86	—
PlainsGold	Whistler	—	—	81	—	—	63	86	—
Watley	TAM 112	—	—	86	—	—	—	—	—
Watley	TAM115	—	—	76	—	—	—	—	—
Watley	TAM204	—	—	76	—	—	—	—	—
Westbred	WB4401	28	61	80	34	—	67	71	18
Westbred	WB4422	26	55	82	—	35	64	71	24
Westbred	WB4632	—	—	84	33	—	51	87	—
Westbred	WB4792	—	—	91	—	48	60	75	26
Experimentals									
OSU	OK16107133-19-4	39	63	—	30	50	56	58	28
OSU	OK16107133-19-3	41	65	—	24	46	62	64	26
OSU	OK16103083	—	—	—	16	—	—	—	—
OSU	OK198417C	31	66	69	32	55	66	72	29
OSU	OK20708	34	64	74	43	51	80	89	27
Mean		34	65	81	32	48	65	75	25
LSD (0.05)		7	5	9	7	6	9	9	4

Notes: Grain yield was adjusted to 12% moisture content. Shaded values are not statistically different from the highest value within a column. Em Dash "—" = data not available.



Altus Regional Wheat Variety Trial

wheat.okstate.edu

Cooperator: OSU Southwest Research and Extension Center
Planting and Harvest Dates: 10/13/2023 and 06/08/2024
Management: Grain-Only
Tillage: Conventional

Extension Educator: Halee Salmon
Previous Crop: Wheat
Soil Type: Hollister Silt Clay Loam
Soil Test: pH=6.7, N=30, P=59, K=774

Licensee	Variety	Grain Yield			Test Weight 2023-24	Protein 2023-24	Stripe rust severity March	Stripe rust severity April
		2023-24	2-Year	3-Year				
		-----bu/ac-----			-- lb/bu --	-- % --	-- % --	-- % --
OGI	OK Corral	49	43	49	56.3	18.1	3	10
OGI	Showdown	45	46	57	59.3	16.4	15	40
LCS	LCS Warbird AX	45	—	—	57.7	15.4	25	35
KWA	KS Providence	44	43	—	58.0	16.7	5	55
OGI	High Cotton	43	45	—	58.5	16.2	7	13
Croplan	CP7869	41	—	—	57.4	15.8	30	18
OGI	Paradox	41	38	—	58.3	16.6	11	50
Westbred	WB4401	41	39	43	57.5	17.0	5	20
AgriPro	AP Roadrunner	40	—	—	57.6	16.9	20	65
OGI	Breadbox	40	—	—	57.9	16.4	12	50
OGI	Firebox	40	44	—	59.9	16.7	10	20
OGI	Strad CL+	40	43	—	58.1	16.9	7	23
Armor	AR Turret 25	39	—	—	57.3	16.6	10	23
PlainsGold	Canvas	38	43	54	57.6	14.7	30	45
LCS	LCS Radar	38	—	—	57.3	17.0	22	18
OGI	Smith's Gold	38	38	47	59.5	15.7	13	20
OGI	Doublestop CL+	36	42	47	60.2	17.2	17	23
Westbred	WB4792	36	42	51	60.3	15.1	15	80
AGSECO	AG Golden	36	39	—	58.8	15.0	50	65
LCS	LCS Helix AX	36	42	50	59.2	14.5	12	75
Croplan	CP7220	35	—	—	59.6	14.9	17	85
LCS	LCS Atomic AX	34	45	53	58.8	17.2	12	23
OGI	Green Hammer	34	41	49	59.2	18.1	25	50
AgriPro	AP24 AX	34	—	—	57.3	15.5	5	70
Armor	AR Iron Eagle 22AX	33	—	—	58.5	15.1	25	80
PlainsGold	Crescent AX	33	39	48	59.2	15.4	20	85
OGI	Unchartered	33	37	46	58.0	16.1	20	50
Croplan	CP7017AX	32	41	49	58.8	14.7	50	88
PlainsGold	CO18035RA	31	—	—	57.7	16.0	20	60
KWA	KS Mako	31	—	—	59.7	15.6	25	80
OGI	Gallagher	31	34	43	59.8	16.7	20	38
LCS	LCS Galloway AX	29	36	—	58.4	17.1	30	80
OGI	Butler's Gold (Late-planted)	26	30	—	59.1	17.7	15	30
OGI	Iba	26	33	—	59.0	15.3	35	65

Westbred	WB4422	24	37	—	60.3	14.9	35	90
LCS	LCS Runner	24	—	—	58.1	14.6	10	80
PlainsGold	Kivari AX	24	33	—	57.9	16.0	40	85
PlainsGold	Byrd CL Plus	23	—	—	58.0	16.3	25	70
LCS	LCS Steel AX	23	32	—	58.4	15.9	50	85
AgriPro	AP Bigfoot	22	35	44	57.9	16.6	12	90
OGL	Bentley	21	35	45	57.1	13.9	20	65
LCS	LCS Photon AX	21	39	49	57.9	15.1	20	90
AgriPro	SY Wolverine	17	—	—	—	17.8	40	90
AgriPro	AP Sunbird	15	—	—	58.4	14.8	55	90
AGSECO	AG Radical	14	27	43	57.7	17.0	40	80
LCS	LCS Julep	12	27	37	57.1	16.8	60	98
PlainsGold	Whistler	11	—	—	—	16.3	15	95
Westbred	WB4632	6	27	—	—	15.6	39	100
Experimentals								
OSU	OK16107133-19-3	37	35	—	58.6	17.6	10	25
OSU	OK1617133-19-4	39	—	—	57.3	17.1	17	25
OSU	OK198417C	49	—	—	60.3	17.7	5	13
OSU	OK20708	38	—	—	59.8	16.5	5	30
Mean		32	38	48	58.5	16.2	22	56
LSD (0.05)		8	9	7	1.2	1.6	—	—

Notes: Grain yield and protein concentration were adjusted to 12% moisture content. Shaded values are not statistically different from the highest value within a column. Stripe rust fungal disease was observed at severe pressure in the season. Severity ratings were collected on March 22 (around flag leaf emergence stage) and on April 30 (around heading). Test weight is not available for some varieties due to small grain sample size caused by stripe rust infection. Double-dashes "--"=data not available.



Alva Wheat Variety Trial

wheat.okstate.edu							
Cooperator: Joe Shirley Planting and Harvest Dates: 10/10/2023 and 06/15/2024 Management: Grain-Only Tillage: Conventional				Extension Educator: Katherine Barger Previous Crop: Wheat Soil Type: Bethany Silt Loam Soil Test: pH=6.3, N=69, P=41, K=626			
Licensee	Variety	Grain Yield			Test Weight	Wheat Protein	Lodging Rate
		2023-24	2-Year	3-Year	2023-24	2023-24	
		-----bu/ac-----			-- lb/bu --	-- % --	0-5
OGI	OK Corral	45	37	32	58.2	13.3	1
LCS	LCS Atomic AX	42	34	31	59.9	14.1	2
AGSECO	AG Golden	42	37	—	58.7	13.1	0
AgriPro	SY Wolverine	42	37	—	59.1	14.4	1
PlainsGold	Crescent AX	41	36	30	59.8	13.2	3
OGI	Showdown	41	38	34	59.6	13.3	2
OGI	Paradox	41	36	31	59.5	13.6	2
Westbred	WB4632	41	35	—	59.9	13.7	2
KWA	KS Providence	41	37	—	59.7	14.3	1
OGI	Gallagher	41	36	31	60.2	14.2	1
OGI	Breadbox	40	—	—	60.0	14.3	1
Croplan	CP7017AX	40	37	33	60.7	12.4	1
OGI	Breakthrough	40	—	—	60.5	12.4	1
LCS	LCS Photon AX	40	32	28	59.5	13.9	2
AgriPro	Bob Dole	40	37	31	59.5	13.6	3
OGI	Butler's Gold	40	30	26	60.2	15.9	2
OGI	Smith's Gold	40	34	30	61.9	13.5	2
Westbred	WB4792	39	36	32	62.1	13.2	2
OGI	Doublestop CL+	38	37	31	60.7	15.4	2
OGI	Strad CL+	38	36	30	60.0	14.5	2
OGI	Iba	38	35	—	61.2	12.7	1
LCS	LCS Galloway AX	38	—	—	60.3	14.0	0
OGI	High Cotton	38	35	—	60.7	13.6	2
OGI	Green Hammer	38	34	28	60.6	15.4	3
PlainsGold	Canvas	38	38	35	61.0	13.2	0
OGI	Firebox	38	33	—	61.7	13.8	2
Experimentals							
OSU	OK20708	39	—	—	60.7	14.0	1
OSU	OK16107133-19-4	39	—	—	58.7	14.1	1
Mean		40	36	31	60.2	13.8	1
LSD (0.05)		2	4	3	0.7	1.0	—

Notes: Grain yield and protein concentration were adjusted to 12% moisture content. Shaded values were not statistically different from the highest value within a column. Lodging was evaluated at harvest on a 0 to 5 scale with 0 indicating no lodging and 5 plot completely lodged. Doubledashes "--" = data not available.



Apache Intensive Wheat Management Variety Trial

wheat.okstate.edu

Cooperator: Bryan Vail Planting and Harvest Dates: 10/16/2023 and 06/13/2024 Management: Grain-Only, No-Till Seeding Rate: 1.2 million seeds/acre Nitrogen: 6 lbs/acre 10-34-0, 70 lbs/ac around 02/01/2024 Fungicide: 4 fl oz/ac Tebucure 3.6 at jointing on 03/14/2024 and 10 fl oz/ac MiCrop at flag leaf on 04/04/2024	Extension Educator: Quentin Scott Previous Crop: Wheat Soil Type: Hollister silt loam Soil Test: pH=5.1, N=100, P=71, K=447
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Licensee	Variety	Grain Yield			Test Weight	Wheat Protein
		2023-24	2-year	3-year	2023-24	2023-24
		-----bu/ac-----			-- lb/bu --	-- % --
PlainsGold	Canvas	75	75	69	59.7	13.4
Westbred	WB4632	75	—	—	59.7	13.4
AGSECO	AG Golden	71	73	—	57.4	13.2
Croplan	CP7017AX	70	73	66	59.5	13.7
OGI	Paradox	70	71	—	59.6	13.6
PlainsGold	Kivari AX	70	—	—	58.0	13.4
OGI	High Cotton	70	74	—	60.0	13.9
AgriPro	AP Roadrunner	69	—	—	58.0	14.3
AgriPro	AP Bigfoot	67	70	—	58.7	14.7
OGI	Gallagher	67	69	60	59.6	14.5
OGI	Breadbox	66	—	—	60.3	14.5
OGI	Showdown	66	73	69	58.1	14.1
OGI	Unchartered	64	69	60	57.7	14.6
Croplan	CP7869	63	—	—	59.6	14.0
Westbred	WB4401	63	63	56	59.5	13.9
KWA	KS Providence	63	71	—	58.9	14.3
LCS	LCS Photon AX	62	64	60	57.4	14.0
OGI	Smith's Gold	60	63	56	60.5	14.6
LCS	LCS Galloway AX	60	—	—	59.1	14.5
OGI	Doublestop CL+	60	67	60	59.2	16.4
LCS	LCS Atomic AX	60	67	63	57.5	14.1
OGI	Strad CL+	59	64	58	58.7	15.5
OGI	OK Corral	59	63	55	58.2	13.5
OGI	Green Hammer	59	66	60	59.0	15.9
OGI	Butler's Gold (Late-planted)	56	47	41	59.8	16.0
OGI	Firebox	56	66	62	59.5	14.5
Experimentals						
OSU	OK16107133-19-4	66	—	—	57.4	14.7
OSU	OK20708	64	—	—	59.1	14.3
OSU	OK16107133-19-3	62	68	—	58.7	14.8
OSU	OK198417C	61	—	—	60.3	15.0
Mean		64	67	60	58.9	14.4
LSD (0.05)		8	6	5	0.9	0.6

Notes: column. There was a low lodging severity in the trial. Butler's Gold late planted was planted on 12/04/2023. Test double-dashes"--" = data not available.



Balko Wheat Variety Trial

wheat.okstate.edu						
Cooperator: Teryl Rorabaugh Planting and Harvest Dates: 09/27/2023 and 06/18/2024 Management: Grain-Only Tillage: Conventional				Extension Educator: Loren Sizelove Previous Crop: Fallow Soil Type: Dale silt loam Soil Test: pH=7.0, N=64, P=54, K=114		
Licensee	Variety	Grain Yield			Test Weight	Wheat Protein
		2023-24	2-Year	3-year	2023-24	2023-24
		-----bu/ac-----			-- lb/bu --	-- % --
Croplan	CP7017AX	60	55	51	61.7	12.7
OGI	Bentley	56	51	50	59.7	12.5
Westbred	WB4792	55	59	50	61.6	12.5
OGI	Showdown	54	54	48	60.6	12.7
AGSECO	AG Golden	50	52	—	57.9	13.2
PlainsGold	Crescent AX	50	47	42	60.5	12.5
Westbred	WB4422	49	—	—	60.8	13.5
AgriPro	SY Wolverine	46	50	—	60.6	13.5
KWA	KS Providence	45	46	—	59.6	14.1
Watley	TAM115	45	48	—	61.0	14.4
LCS	LCS Galloway AX	42	—	—	59.2	13.9
PlainsGold	Canvas	41	44	43	60.1	13.0
LCS	LCS Photon AX	40	39	40	58.8	13.6
OGI	Breakthrough	38	38	37	60.4	14.0
OGI	High Cotton	36	41	—	60.3	13.8
AgriPro	AP Roadrunner	36	—	—	57.7	13.2
OGI	Burler's Gold	35	—	—	61.1	14.0
OGI	Paradox	35	41	—	59.1	13.1
OGI	Smith's Gold	34	40	39	59.4	13.8
OGI	OK Corral	34	40	38	56.6	12.9
LCS	LCS Atomic AX	33	37	39	59.9	13.5
OGI	Gallagher	33	41	40	59.6	14.2
OGI	Breadbox	28	—	—	58.6	13.1
OGI	Doublestop CL+	27	—	—	58.7	15.6
OGI	Strad CL+	26	—	—	57.9	15.0
OGI	Iba	22	30	31	57.6	13.1
Experimentals						
OSU	OK20708	41	—	—	59.1	13.5
OSU	OK198417C	39	—	—	60.5	14.3
Mean		40	45	42	59.6	13.5
LSD (0.05)		10	7	7	2.1	1.1

Notes: Grain yield and protein concentration were adjusted to 12% moisture content. Shaded values are not statistically different from the highest value within a column. Em Dash "—" = data not available.



Cherokee Wheat Variety Trial

wheat.okstate.edu					
Cooperator: Kenneth Failes Planting and Harvest Dates: 09/28/2023 and 06/15/2024 Management: Grain-Only Tillage: Conventional Tillage			Extension Educator: Erin Metcalf Previous Crop: Wheat Soil Type: Dale silt loam Soil Test: pH=5.9, N=175, P=68, K=665		
Licensee	Variety	Grain Yield		Test Weight	Wheat Protein
		2023-24	2-year	2023-24	2023-24
		-----bu/ac-----		-- lb/bu --	-- % --
OGI	Showdown	68	55	61.8	13.9
OGI	Bentley	64	—	60.4	14.4
AGSECO	Ag Radical	63	52	60.4	13.7
PlainsGold	Canvas	60	53	62.7	14.9
KWA	KS Providence	52	50	60.2	15.3
Croplan	CP7017AX	51	48	61.7	15.6
Westbred	WB4792	51	46	64.2	14.8
OGI	Green Hammer	50	42	60.7	16.3
Westbred	WB4422	50	44	61.7	16.0
AgriPro	AP Prolific	49	—	60.5	15.6
LCS	LCS Helix AX	47	42	61.3	15.4
PlainsGold	Crescent AX	46	45	60.5	15.4
LCS	LCS Steel AX	45	—	61.4	14.6
AgriPro	Bob Dole	44	41	59.4	16.3
OGI	High Cotton	44	37	60.8	16.0
OGI	Unchartered	44	40	59.4	15.1
OGI	Doublestop CL+	41	42	61.4	17.1
OGI	Smith's Gold	41	41	62.2	15.6
OGI	OK Corral	39	37	59.2	15.4
AgriPro	SY Wolverine	37	38	61.1	16.4
OGI	Paradox	36	39	60.1	14.8
OGI	Iba	35	37	62.3	14.8
OGI	Strad CL+	32	36	59.6	15.9
OGI	Gallagher	32	33	60.8	16.3
LCS	LCS Atomic AX	29	35	60.3	15.8
OGI	Breadbox	26	—	60.4	16.5
OGI	Butler's Gold	24	24	59.1	19.2
Experimentals					
OSU	OK198417C	51	—	62.8	16.1
OSU	OK20708	36	—	60.7	16.7
OSU	OK16107133-19-3	30	33	59.9	18.0
Mean		44	41	60.9	15.7
LSD (0.05)		10	8	1.1	1.5

Notes: Grain yield and protein concentration were adjusted to 12% moisture content. Shaded values were not statistically different from the highest value within a column. The plots experienced severe drought during the season, root/crown rot fungal disease and freeze damage. In the 2021-2022 season, we utilized a different statistical analysis for grain yield, test weight and protein to reduce the impact of the spatial variability possibly caused by a heavier root rot infestation on the north side of the experiment. Therefore, data from the 2022 harvest year was not combined with other years to provide three-year averages. The two-year yield averages include the 2023 and 2024 harvest years. Em Dash "—" = data not available.



Chickasha Regional Wheat Variety Trial

wheat.okstate.edu

Cooperator: OSU South Central Research Station
Planting and Harvest Dates: 10/16/2023 and 06/14/2024
Management: Grain-Only
Tillage: Conventional

Extension Educator: Kelly Burrows
Previous Crop: Austrian winter peas
Soil Type: Dale silt loam
Soil Test: pH=7.5, N=93, P=46, K=314

Licensee	Variety	Grain Yield			Test Weight	Wheat Protein	Lodging rating	Stripe rust severity	Leaf rust severity
		2023-24	2-Year	3-year					
		-----bu/ac-----			-- lb/bu --	-- % --	0 - 5	-- % --	-- % --
OGI	Paradox	86	84	79	56.7	12.6	3*	5	0
OGI	Breadbox	83	—	—	57.2	12.7	2	0	0
Westbred	WB4401	81	79	73	59.2	11.4	1*	10	15
Westbred	WB4792	80	76	73	57.7	11.6	0	75	0
OGI	High Cotton	80	76	—	59.1	12.1	2*	0	10
AgriPro	AP Prolific	80	82	75	55.7	12.5	2*	25	0
OGI	Unchartered	79	74	69	57.3	12.5	2*	15	15
OGI	Showdown	79	80	76	56.4	11.7	1*	10	30
KWA	KS Providence	77	80	76	56.0	12.3	2	55	0
LCS	LCS Radar	77	—	—	57.7	12.5	1*	10	0
OGI	Strad CL+	76	73	69	56.7	12.2	2*	0	0
AgriPro	AP Roadrunner	76	—	—	54.7	12.2	1	10	5
AGSECO	AG Golden	75	79	75	55.1	11.0	1*	25	5
OGI	Gallagher	74	78	74	56.5	11.8	2	30	10
LCS	LCS Warbird AX	73	—	—	57.8	13.0	1*	15	20
OGI	Doublestop CL+	73	76	70	59.0	13.1	1	0	10
KWA	KS Mako	72	—	—	56.9	11.9	0	40	20
OGI	Green Hammer	72	72	68	57.7	13.4	1	10	15
OGI	Firebox	72	69	62	59.0	13.0	2*	0	20
AgriPro	Bob Dole	71	79	75	57.1	12.5	2	55	0
PlainsGold	Canvas	71	74	73	55.9	11.8	2*	25	40
Croplan	CP7869	71	—	—	56.7	12.4	4*	0	0
PlainsGold	Crescent AX	70	73	72	58.8	11.9	3*	60	25
Agripro	AP24 AX	70	—	—	56.3	10.6	1	60	55
LCS	LCS Helix AX	70	74	72	58.8	12.3	2*	60	5
Armor	AR Turret 25	70	—	—	57.0	12.7	3*	15	0
OGI	Smith's Gold	69	72	70	58.9	12.3	1	0	20
PlainsGold	CO18035RA	68	—	—	55.5	11.9	2*	50	40
LCS	LCS Atomic AX	66	71	73	56.1	13.2	2	15	10
OGI	Big Country	66	76	65	58.1	12.6	1	0	0
LCS	LCS Steel AX	66	73	71	54.9	12.0	1*	65	15
AgriPro	AP Bigfoot	65	71	—	56.2	11.2	2*	60	0
Croplan	CP7220	65	—	—	57.1	11.5	1*	50	40
Armor	AR Iron Eagle 22AX	64	—	—	54.4	11.3	2*	55	40
LCS	LCS Galloway AX	63	67	—	57.9	12.6	0*	30	5
AgriPro	SY Wolverine	62	—	—	52.6	12.9	4*	90	10

LCS	LCS Runner	62	—	—	56.0	11.0	1*	70	20
LCS	LCS Photon AX	61	67	66	54.3	12.4	2*	80	20
Croplan	CP7017AX	61	68	68	54.7	11.6	2*	60	40
Westbred	WB4422	59	72	70	52.8	12.8	4*	85	10
PlainsGold	Byrd CL Plus	57	—	—	53.3	12.5	3*	70	50
Westbred	WB4632	57	71	—	53.9	11.5	4*	100	20
PlainsGold	Kivari AX	57	70	—	52.5	11.5	3*	85	20
OGL	Butler's Gold (late-planted)	56	—	—	59.1	12.3	1	0	20
LCS	LCS Julep	46	63	64	54.2	12.5	1*	70	30
PlainsGold	Whistler	42	—	—	53.7	10.1	5*	50	70
AGSECO	AG Radical	39	56	57	50.0	13.0	3*	70	5
OGL	OK Corral	—	—	—	56.1	11.7	2*	5	30
Experimentals									
OSU	OK16107133-19-4	82	—	—	56.3	12.0	0	0	20
OSU	OK20708	80	—	—	56.5	11.7	1	10	5
OSU	OK198417C	79	—	—	58.8	12.5	0	0	0
OSU	OK16107133-19-3	76	78	—	57.2	11.9	1	0	20
Mean		69	73	70	56.3	12.1	2	34	17
LSD (0.05)		9	8	7	1.2	1.3	—	—	—

Notes: Grain yield was adjusted to 12% moisture content. Shaded values were not statistically different from the highest value within a column. Butler's Gold late planted was planted on 12/04/2023. Lodging was evaluated at harvest on a 0 to 5 scale with 0 indicating no lodging and 5 plot completely lodged. * Brackling was observed. OK Corral had a 20% yield loss due to deer damage and yield data was removed from standard management trial. Stripe and leaf rust fungal diseases were observed at moderate to severe pressure in the season. Disease severity ratings were collected on April 30 (around anthesis). The trial received 3.8" rainfall between harvest maturity and the time it could be harvested, thus driving down test weight. Em Dash "—" = data not available.



Chickasha Regional Intensive Wheat Management Variety Trial

wheat.okstate.edu

Cooperator: OSU South Central Research Station
Planting and Harvest Dates: 10/16/2023 and 06/14/2024
Management: Conventional Tillage
Nitrogen: 6 lbs/acre 10-34-0, 40 lbs/ac on 2/19/24, 60 lbs/ac on 3/14/24
Fungicide: 2.5 fl oz/ac Tebucure 3.6 at jointing on 03/14/24 and 9 fl oz/ac at flag leaf-boot stage on 04/3/24

Extension Educator: Kelly Burrows
Previous Crop: Austrian Winter Peas
Soil Type: Dale silt loam
Soil Test: pH=6.6, N=56, P=35, K=221

Licensee	Variety	Grain Yield			Test Weight	Wheat Protein	Lodging rating
		2023-24	2-Year	3-year			
		-----bu/ac-----			-- lb/bu --	-- % --	0-5
Westbred	WB4433	101	98	91	58.8	13.0	0
Westbred	WB4632	99	94	—	57.4	11.3	0
Armor	AR Iron Eagle 22AX	98	—	—	57.7	11.9	1
Croplan	CP7017AX	98	93	88	57.8	11.6	0
OGI	Showdown	95	94	86	57.2	12.2	1
AgriPro	SY Wolverine	94	—	—	54.4	12.4	2
KWA	KS Mako	94	—	—	58.6	12.1	1
LCS	LCS Steel AX	93	88	82	57.5	11.7	1
Westbred	WB4401	92	91	83	59.0	11.1	1*
Westbred	WB4792	92	89	85	58.8	11.4	0
OGI	Paradox	91	92	86	56.5	11.9	1
AGSECO	AG Golden	91	91	88	56.0	11.7	0
LCS	LCS Radar	91	—	—	58.3	12.4	1*
PlainsGold	Byrd CL Plus	90	—	—	57.7	11.4	1
OGI	High Cotton	90	89	—	58.6	12.1	2
AgriPro	AP Roadrunner	89	—	—	56.0	12.4	0
PlainsGold	Canvas	89	87	82	57.2	12.4	0
PlainsGold	CO18035RA	88	—	—	57.4	11.9	1
OGI	Strad CL+	85	79	74	57.1	13.1	0
AGSECO	AG Radical	85	84	80	54.8	12.2	0
LCS	LCS Julep	85	85	79	58.6	12.1	1
AgriPro	AP Proflic	84	88	83	55.2	13.3	1
Croplan	CP7220	84	—	—	57.3	11.4	0
PlainsGold	Whistler	84	—	—	57.1	11.1	2
AgriPro	AP24 AX	83	—	—	56.5	11.8	0
Armor	AR Turret 25	83	—	—	57.1	12.0	1*
PlainsGold	Kivari AX	82	86	—	55.8	11.6	3
AgriPro	AP Bigfoot	82	87	—	57.2	12.1	2
LCS	LCS Helix AX	82	88	84	59.3	12.0	1
OGI	Gallagher	82	87	83	56.9	12.1	1*
LCS	LCS Runner	82	—	—	57.2	11.6	1*
OGI	Firebox	82	82	75	59.1	13.3	1*
OGI	Breadbox	81	—	—	56.7	11.2	1
OGI	OK Corral	80	85	81	56.6	11.3	1
AgriPro	Bob Dole	79	87	83	57.0	12.7	3
LCS	LCS Atomic AX	79	82	80	56.5	12.3	1

LCS	LCS Photon AX	79	79	75	57.3	11.8	1
OGI	Smith's Gold	78	82	78	58.9	12.3	1
OGI	Unchartered	77	77	73	56.9	12.4	1
Croplan	CP7869	77	—	—	57.2	11.6	1*
LCS	LCS Galloway AX	76	79	—	58.3	12.9	0
KWA	KS Providence	76	85	80	56.0	12.3	0
PlainsGold	Crescent AX	75	81	82	58.9	12.2	2
LCS	LCS Warbird AX	74	—	—	58.0	11.7	0
OGI	Green Hammer	73	77	74	58.4	13.1	1
OGI	Big Country	71	79	72	57.8	12.1	0
OGI	Doublestop CL+	70	75	72	58.6	12.6	0
OGI	Butler's Gold (late-planted)	54	—	—	58.5	13.7	0
Experimentals							
OSU	OK16107133-19-4	93	—	—	56.5	11.6	0
OSU	OK198417C	88	—	—	59.5	12.1	1
OSU	OK20708	88	—	—	57.0	11.7	1*
OSU	OK16107133-19-3	72	76	—	56.7	12.3	0.0
Mean		84	85	81	57.4	12.1	1
LSD (0.05)		12	8	6	1.2	1.3	—

Notes: Grain yield was adjusted to 12% moisture content. Shaded values were not statistically different from the highest value within a column. Butler's Gold late planted was planted on 12/04/2023. Lodging was evaluated at harvest on a 0 to 5 scale with 0 indicating no lodging and 5 plot completely lodged. * Brackling was observed. Stripe and leaf rust fungal diseases were observed at moderate to severe pressure in the season. Disease severity ratings were collected on April 30 (around anthesis). The trial received 3.8" rainfall between harvest maturity and the time it could be harvested, thus driving down test weight. Em Dash "—" = data not available.



Chickasha Wheat Variety Trial Standard vs. Intensive Management Comparison

wheat.okstate.edu

Cooperator: OSU South Central Research Station
Planting and Harvest Dates: 10/16/2023 and 06/14/2024
Management: Conventional Tillage

Extension Educator: Kelly Burrows
Previous Crop: Austrian Winter Peas
Soil Type: Dale silt loam
Soil Test: pH=7.5, N=93, P=46, K=314

Nitrogen for IM: 6 lbs/acre 10-34-0 at planting, 40 lbs/ac on 2/19/24, 60 lbs/ac on 3/14/24
Fungicide: 2.5 fl oz/ac Tebucure 3.6 at jointing on 03/14/23 and 9 fl oz/ac at flag leaf-boot stage on 04/3/24

Licensee	Variety	Grain Yield			Test Weight			Protein		
		Standard	Intensive	Diff	Standard	Intensive	Diff	Standard	Intensive	Diff
		-----bu/ac-----			-----lb/bu-----			-----%-----		
OGI	Paradox	86	91	5	56.7	56.5	-0.2	12.6	11.9	-0.7
OGI	Breadbox	83	81	-2	57.2	56.7	-0.5	12.7	11.2	-1.5
Westbred	WB4401	81	92	11	59.2	59.0	-0.2	11.4	11.1	-0.3
Westbred	WB4792	80	92	12	57.7	58.8	1.1	11.6	11.4	-0.2
OGI	High Cotton	80	90	10	59.1	58.6	-0.5	12.1	12.1	0.0
AgriPro	AP Prolific	80	84	4	55.7	55.2	-0.5	12.5	13.3	0.8
OGI	Unchartered	79	77	-2	57.3	56.9	-0.4	12.5	12.4	-0.1
OGI	Showdown	79	95	16	56.4	57.2	0.8	11.7	12.2	0.5
KWA	KS Providence	77	76	-1	56.0	56.0	0.0	12.3	12.3	0.0
LCS	LCS Radar	77	91	14	57.7	58.3	0.6	12.5	12.4	-0.1
OGI	Strad CL+	76	85	9	56.7	57.1	0.4	12.2	13.1	0.9
AgriPro	AP Roadrunner	76	89	13	54.7	56.0	1.3	12.2	12.4	0.2
AGSECO	AG Golden	75	91	16	55.1	56.0	0.9	11.0	11.7	0.7
OGI	Gallagher	74	82	8	56.5	56.9	0.4	11.8	12.1	0.3
LCS	LCS Warbird AX	73	74	1	57.8	58.0	0.2	13.0	11.7	-1.3
OGI	Doublestop CL+	73	70	-3	59.0	58.6	-0.4	13.1	12.6	-0.5
KWA	KS Mako	72	94	22	56.9	58.6	1.7	11.9	12.1	0.2
OGI	Green Hammer	72	73	1	57.7	58.4	0.7	13.4	13.1	-0.3
OGI	Firebox	72	82	10	59.0	59.1	0.1	13.0	13.3	0.3
AgriPro	Bob Dole	71	79	8	57.1	57.0	-0.1	12.5	12.7	0.2
PlainsGold	Canvas	71	89	18	55.9	57.2	1.3	11.8	12.4	0.6
Croplan	CP7869	71	77	6	56.7	57.2	0.5	12.4	11.6	-0.8
PlainsGold	Crescent AX	70	75	5	58.8	58.9	0.1	11.9	12.2	0.3
AgriPro	AP24 AX	70	83	13	56.3	56.5	0.2	10.6	11.8	1.2
LCS	LCS Photon AX	66	79	13	54.3	57.3	3.0	12.4	11.8	-0.6
LCS	LCS Helix AX	70	82	12	58.8	59.3	0.5	12.3	12.0	-0.3
Armor	AR Turret 25	70	83	13	57.0	57.1	0.1	12.7	12.0	-0.7
OGI	Smith's Gold	69	78	9	58.9	58.9	0.0	12.3	12.3	0.0
PlainsGold	CO18035RA	68	88	20	55.5	57.4	1.9	11.9	11.9	0.0
LCS	LCS Atomic AX	66	79	13	56.1	56.5	0.4	13.2	12.3	-0.9

OGI	Big Country	66	71	5	58.1	57.8	-0.3	12.6	12.1	-0.5
LCS	LCS Steel AX	66	93	27	54.9	57.5	2.6	12.0	11.7	-0.3
AgriPro	AP Bigfoot	65	82	17	56.2	57.2	1.0	11.2	12.1	0.9
Croplan	CP7220	65	84	19	57.1	57.3	0.2	11.5	11.4	-0.1
Armor	AR Iron Eagle 22AX	64	98	34	54.4	57.7	3.3	11.3	11.9	0.6
LCS	LCS Galloway AX	63	76	13	57.9	58.3	0.4	12.6	12.9	0.3
AgriPro	SY Wolverine	62	94	32	52.6	54.4	1.8	12.9	12.4	-0.5
LCS	LCS Runner	62	82	20	56.0	57.2	1.2	11.0	11.6	0.6
Croplan	CP7017AX	61	98	37	54.7	57.8	3.1	11.6	11.6	0.0
Westbred	WB4422	59	101	42	52.8	58.8	6.0	12.8	13.0	0.2
PlainsGold	Byrd CL Plus	57	90	33	53.3	57.7	4.4	12.5	11.4	-1.1
Westbred	WB4632	57	99	42	53.9	57.4	3.5	11.5	11.3	-0.2
PlainsGold	Kivari AX	57	82	25	52.5	55.8	3.3	11.5	11.6	0.1
OGI	Butler's Gold (late-planted)	56	54	-2	59.1	58.5	-0.6	12.3	13.7	1.4
LCS	LCS Julep	46	85	39	54.2	58.6	4.4	12.5	12.1	-0.4
PlainsGold	Whistler	42	84	42	53.7	57.1	3.4	10.1	11.1	1.0
AGSECO	AG Radical	39	85	46	50.0	54.8	4.8	13.0	12.2	-0.8
OGI	OK Corral	—	80		56.1	56.6	0.5	11.7	11.3	-0.4
Experimentals										
OSU	OK16107133-19-4	82	93	11	56.3	56.5	0.2	12.0	11.6	-0.4
OSU	OK20708	80	88	8	56.5	57.0	0.5	11.7	11.7	0.0
OSU	OK198417C	79	88	9	58.8	59.5	0.7	12.5	12.1	-0.4
OSU	OK16107133-19-3	76	72	-4	57.2	56.7	-0.5	11.9	12.3	0.4
Mean		69	84	16	56.3	57.4	1.1	12.1	12.1	0.0
LSD (0.05)		9	12	—	1.2	1.2	—	1.3	1.3	—

Notes: Grain yield was adjusted to 12% moisture content. Shaded values were not statistically different from the highest value within a column. Butler's Gold late planted was planted on 12/04/2023. Lodging was evaluated at harvest on a 0 to 5 scale with 0 indicating no lodging and 5 plot completely lodged. * Brackling was observed. OK Corral had a 20% yield loss due to deer damage and yield data was removed from standard management trial. Stripe and leaf rust fungal diseases were observed at moderate to severe pressure in the season. Disease severity ratings were collected on April 30 (around anthesis). The trial received 3.8" rainfall between harvest maturity and the time it could be harvested, thus driving down test weight. Em Dash "—" = data not available.



El Reno Dual-Purpose Wheat Variety Trial

wheat.okstate.edu						
Cooperator: Jerry Lingo Planting and Harvest Dates: 09/25/2023 and 06/08/2024 Management: Dual-Purpose Tillage: Conventional			Extension Educator: Kyle Worthington Previous Crop: Wheat Soil Type: Bethany silt loam Soil Test: pH=6.2, N=92, P=68, K=372			
Licensee	Variety	Grain Yield			Test Weight	Wheat Protein
		2023-24	2-Year	3-year	2023-24	2023-24
		-----bu/ac-----			-- lb/bu --	-- % --
OGI	High Cotton	42	56	—	59.7	11.1
OGI	Showdown	42	54	55	58.8	10.3
OGI	Firebox	39	48	—	60.2	11.5
OGI	Smith's Gold	38	45	43	60.9	10.4
OGI	Unchartered	37	50	47	58.0	11.3
OGI	OK Corral	37	44	43	58.9	10.5
LCS	LCS Galloway AX	36	—	—	59.2	11.5
AgriPro	AP Roadrunner	35	—	—	58.7	10.9
PlainsGold	Crescent AX	34	48	48	59.3	11.4
OGI	Doublestop CL+	34	50	47	61.4	12.9
OGI	Big Country	34	47	41	60.7	11.0
OGI	Breadbox	32	—	—	59.4	10.9
AgriPro	AP Prolific	32	49	—	58.1	11.8
OGI	Paradox	32	46	44	58.2	11.3
KWA	KS Providence	31	—	—	59.4	12.3
LCS	LCS Julep	31	—	—	60.8	11.6
OGI	Gallagher	31	45	44	58.6	11.3
LCS	LCS Atomic AX	31	45	46	58.8	11.6
PlainsGold	Kivari AX	30	—	—	58.2	10.2
OGI	Green Hammer	30	45	43	60.7	12.8
AGSECO	AG Radical	29	47	47	58.7	11.1
Westbred	WB4401	28	44	41	58.9	10.8
Westbred	WB4422	26	47	—	58.3	11.3
OGI	Strad CL+	26	41	39	59.6	12.8
Experimentals						
OSU	OK16107133-19-3	41	50	—	59.4	12.4
OSU	OK16107133-19-4	39	—	—	58.1	12.3
OSU	OK20708	34	—	—	58.3	11.3
OSU	OK198417C	31	—	—	60.1	11.5
Mean		34	47	45	59.3	11.4
LSD (0.05)		7	6	5	1.7	0.9

Notes: Grain yield was adjusted to 12% moisture content. Shaded values were not statistically different from the highest value within a column. Plots were grazed from 11/29/23 to 02/23/24 at 308 pounds of animal body weight per acre. There was a moderate pressure of Sharp Eyespot root rot fungal disease. Em Dash "—" = data not available.



EI Reno Grain-Only Wheat Variety Trial

wheat.okstate.edu						
Cooperator: Jerry Lingo Planting and Harvest Dates: 10/17/2023 and 06/08/2024 Management: Grain-Only Tillage: Conventional				Extension Educator: Kyle Worthington Previous Crop: Wheat Soil Type: Bethany silt loam Soil Test: pH=6.2, N=92, P=68, K=372		
Licensee	Variety	Grain Yield			Test Weight	Wheat Protein
		2023-24	2-Year	3-year	2023-24	2023-24
		-----bu/ac-----			-- lb/bu --	-- % --
OGI	Showdown	79	67	65	59.4	10.3
OGI	High Cotton	71	51	—	60.0	10.9
PlainsGold	Crescent AX	70	60	63	59.6	10.5
OGI	Paradox	70	55	56	60.1	10.2
AgriPro	AP Prolific	68	61	—	59.6	10.7
KWA	KS Providence	68	—	—	59.0	11.1
OGI	Strad CL+	68	45	49	60.7	11.8
OGI	Breadbox	67	—	—	60.1	10.2
LCS	LCS Galloway AX	66	—	—	59.9	11.2
OGI	OK Corral	66	51	52	59.0	10.5
PlainsGold	Kivari AX	65	—	—	57.6	9.5
OGI	Big Country	65	56	51	59.8	10.7
OGI	Doublestop CL+	65	55	56	61.6	12.5
OGI	Gallagher	65	51	52	60.0	10.6
OGI	Firebox	65	55	—	60.2	11.3
OGI	Green Hammer	64	54	55	59.9	11.9
OGI	Uncharted	64	51	53	58.7	11.1
LCS	LCS Atomic AX	64	54	57	58.8	10.4
AgriPro	AP Roadrunner	63	—	—	58.3	10.1
OGI	Smith's Gold	62	46	50	60.6	11.1
Westbred	WB4401	61	49	49	60.5	10.3
AGSECO	AG Radical	59	55	58	57.9	10.3
Westbred	WB4422	55	51	—	58.2	10.0
LCS	LCS Julep	53	—	—	60.1	10.4
Experimentals						
OSU	OK198417C	66	—	—	61.2	11.7
OSU	OK16107133-19-3	65	53.7	—	59.4	12.2
OSU	OK20708	64	—	—	59.5	10.6
OSU	OK16107133-19-4	63	—	—	59.0	11.7
Mean		65	54	55	59.6	10.8
LSD (0.05)		5	7	6	0.8	0.7

Notes: Grain yield was adjusted to 12% moisture content. Shaded values were not statistically different from the highest value within a column. There was a moderate pressure of Sharp Eyespot root rot fungal disease. Em-dash "—" = data not available.



EI Reno Wheat Variety Trial Dual Purpose and Grain-Only Comparison

wheat.okstate.edu

Cooperator: Jerry Lingo Planting Date: 09/25/2023 (Dual-Purpose) & 10/17/2023 (Grain-Only) Harvest Date: 06/08/2024 Tillage: Conventional	Extension Educator: Kyle Worthington Previous Crop: Wheat Soil Type: Bethany silt loam Soil Test: pH=6.2, N=92, P=68, K=372
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Licensee	Variety	Grain Yield			Test Weight			Wheat Protein		
		Dual-purpose	Grain-only	Diff	Dual-purpose	Grain-only	Diff	Dual-purpose	Grain-only	Diff
-----bu/ac-----										
OGI	High Cotton	42	71	-29	59.7	60.0	-0.3	11.1	10.9	0.2
OGI	Showdown	42	79	-37	58.8	59.4	-0.6	10.3	10.3	0.0
OGI	Firebox	39	65	-26	60.2	60.2	0.0	11.5	11.3	0.2
OGI	Smith's Gold	38	62	-24	60.9	60.6	0.3	10.4	11.1	-0.7
OGI	Uncharted	37	64	-27	58.0	58.7	-0.7	11.3	11.1	0.2
OGI	OK Corral	37	66	-29	58.9	59.0	-0.1	10.5	10.5	0.0
LCS	LCS Galloway AX	36	66	-30	59.2	59.9	-0.7	11.5	11.2	0.3
AgriPro	AP Roadrunner	35	63	-28	58.7	58.3	0.4	10.9	10.1	0.8
PlainsGold	Crescent AX	34	70	-36	59.3	59.6	-0.3	11.4	10.5	0.9
OGI	Doublestop CL+	34	65	-31	61.4	61.6	-0.2	12.9	12.5	0.4
OGI	Big Country	34	65	-31	60.7	59.8	0.9	11.0	10.7	0.3
OGI	Breadbox	32	67	-35	59.4	60.1	-0.7	10.9	10.2	0.7
AgriPro	AP Prolific	32	68	-36	58.1	59.6	-1.5	11.8	10.7	1.1
OGI	Paradox	32	70	-38	58.2	60.1	-1.9	11.3	10.2	1.1
KWA	KS Providence	31	68	-37	59.4	59.0	0.4	12.3	11.1	1.2
LCS	LCS Julep	31	53	-22	60.8	60.1	0.7	11.6	10.4	1.2
OGI	Gallagher	31	65	-34	58.6	60.0	-1.4	11.3	10.6	0.7
LCS	LCS Atomic AX	31	64	-33	58.8	58.8	0.0	11.6	10.4	1.2
PlainsGold	Kivari AX	30	65	-35	58.2	57.6	0.6	10.2	9.5	0.7
OGI	Green Hammer	30	64	-34	60.7	59.9	0.8	12.8	11.9	0.9
AGSECO	AG Radical	29	59	-30	58.7	57.9	0.8	11.1	10.3	0.8
Westbred	WB4401	28	61	-33	58.9	60.5	-1.6	10.8	10.3	0.5
Westbred	WB4422	26	55	-29	58.3	58.2	0.1	11.3	10.0	1.3
OGI	Strad CL+	26	69	-42	59.6	60.7	-1.1	12.8	11.8	1.0
Experimentals										
OSU	OK16107133-19-3	41	65	-24	59.4	59.4	0.0	12.4	12.2	0.2
OSU	OK16107133-19-4	39	63	-24	58.1	59.0	-0.9	12.3	11.7	0.6
OSU	OK20708	34	64	-30	58.3	59.5	-1.2	11.3	10.6	0.7
OSU	OK198417C	31	66	-35	60.1	61.2	-1.1	11.5	11.7	-0.2
Mean		34	65	-31	59.3	59.6	-0.3	11.4	10.8	0.6
LSD (0.05)		7	5	—	1.7	0.8	—	0.9	0.7	—

Notes: Grain yield was adjusted to 12% moisture content. Shaded values were not statistically different from the highest value within a column. Plots were grazed from 11/29/23 to 02/23/24 at 308 pounds of animal body weight per acre. There was a moderate pressure of Sharp Eyespot root rot fungal disease. Em-dash "—" = data not available.



Hooker Regional Wheat Variety Trial

wheat.okstate.edu						
Cooperator: Dan Herald Planting and Harvest Dates: 09/27/2023 and 06/18/2024 Management: Grain-Only Tillage: No-Till			Extension Educator: Dr. Britt Hicks Previous Crop: Sorghum Soil Type: Dalhart fine sandy loam Soil Test: pH=6.3, N=41, P=70, K=598			
Licensee	Variety	Grain Yield			Test Weight	Wheat Protein
		2023-24	2-Year	3-year	2023-24	2023-24
		-----bu/ac-----			-- lb/bu --	-- % --
AGSECO	AG Golden	93	59	—	59.5	14.1
LCS	LCS Helix AX	91	52	—	60.9	13.7
Westbred	WB4792	91	52	55	62.1	14.1
LCS	LCS Radar	90	—	—	59.0	15.7
PlainsGold	Crescent AX	90	51	58	61.1	14.1
LCS	LCS Steel AX	90	53	—	60.4	14.2
PlainsGold	Canvas	89	53	59	61.9	14.1
Croplan	CP7869	88	—	—	60.5	15.4
OGI	Showdown	88	53	56	60.4	14.2
Armor	AR Turret 25	88	—	—	60.1	16.0
LCS	LCS Warbird AX	87	—	—	60.1	15.6
LCS	LCS Photon AX	86	48	—	60.3	14.7
Watley	TAM 112	86	—	—	62.0	14.9
AgriPro	AP Sunbird	86	—	—	61.0	14.4
PlainsGold	Kivari AX	85	—	—	60.1	14.2
KWA	KS Mako	85	—	—	61.6	15.7
OGI	Breakthrough	85	48	51	61.6	14.9
PlainsGold	Byrd CL Plus	85	—	—	60.5	13.7
LCS	LCS Runner	84	49	—	61.2	13.7
Westbred	WB4632	84	—	—	59.3	15.2
AgriPro	AP Roadrunner	83	50	—	58.8	15.2
AgriPro	AP24 AX	83	—	—	59.5	14.1
Westbred	WB4422	82	50	—	60.7	15.0
Armor	AR Iron Eagle 22AX	81	—	—	61.0	15.1
AgriPro	SY Wolverine	81	—	—	60.6	15.8
PlainsGold	Whistler	81	—	—	58.4	15.4
Croplan	CP7017AX	81	49	—	61.5	14.6
OGI	Bentley	80	48	57	59.0	14.4
PlainsGold	CO18035RA	80	—	—	60.7	14.9
LCS	LCS Julep	80	45	—	62.0	15.7
Westbred	WB4401	80	48	—	61.1	13.7
OGI	OK Corra	80	48	55	58.4	14.1
OGI	Iba	78	46	53	61.7	14.2
LCS	LCS Galloway AX	78	—	—	59.7	15.3
OGI	Butler's Gold	77	—	—	61.1	16.1
KWA	KS Providence	77	48	—	59.6	14.6

Watley	TAM115	76	—	—	62.7	14.4
Watley	TAM204	76	—	—	57.9	15.8
AgriPro	AP Bigfoot	75	—	—	60.5	15.4
OGI	Gallagher	75	48	53	59.1	15.6
OGI	Paradox	74	—	—	58.8	16.2
OGI	High Cotton	74	—	—	60.4	15.1
OGI	Breadbox	73	—	—	59.5	15.8
OGI	Strad CL+	71	40	—	59.8	16.2
LCS	LCS Atomic AX	68	39	—	60.2	14.2
OGI	Doublestop CL+	68	—	—	62.5	15.8
OGI	Smith's Gold	65	41	50	61.7	14.9
Croplan	CP7220	64	—	—	60.4	14.8
Experimentals						
OSU	OK20708	74	—	—	59.9	15.3
OSU	OK198417C	69	—	—	61.6	16.2
Mean		81	49	55	60.4	13.7
LSD (0.05)		9	7	NS	0.9	1.1

Notes: Grain yield and protein concentration were adjusted to 12% moisture content. Due to the severe drought, plots were not harvested in the 2022-23 growing season. Thus, two-year and three-year averages represent results from 2024, 2022 and 2021 harvest years. Shaded values are not statistically different from the highest value within a column. Em-dash "—" = data not available. NS, no statistical difference between varieties.



Kildare Wheat Variety Trial

wheat.okstate.edu								
Cooperator: Stan Claybaker Planting and Harvest Dates: 11/14/2023 and 06/17/2024 Management: Grain-Only Tillage: No-Till					Extension Educator: MacKinzie Overman Previous Crop: Soybeans Soil Type: Tabler silt loam Soil Test: pH=6.4, N=98, P=56, K=302			
Licensee	Variety	Grain Yield			Test Weight	Wheat Protein	Stripe rust severity	Leaf rust severity
		2023-24	2-Year	3-year				
		-----bu/ac-----			-- lb/bu --	-- % --	-- % --	-- % --
LCS	LCS Helix AX	43	29	—	60.3	15.2	80	5
PlainsGold	Canvas	42	—	—	59.3	14.7	60	20
PlainsGold	Crescent AX	41	31	—	60.2	14.9	70	10
OGI	High Cotton	41	32	—	58.2	15.8	10	5
OGI	Showdown	37	30	30	56.0	14.9	20	20
OGI	OK Corral	37	31	29	55.9	15.8	10	20
OGI	Green Hammer	37	32	34	57.5	18.7	25	10
AgriPro	AP Prolific	37	32	—	56.1	16.7	60	10
KWA	KS Providence	37	33	—	56.1	15.8	30	5
OGI	Strad CL+	34	35	35	58.6	17.7	5	0
OGI	Butler's Gold	34	27	—	58.9	17.5	20	5
Westbred	WB4401	34	31	—	58.4	15.2	40	5
Westbred	WB4632	33	30	—	58.1	14.2	80	10
LCS	LCS Atomic AX	32	24	—	57.1	16.0	45	5
OGI	Doublestop CL+	32	32	35	58.5	18.1	5	10
OGI	Paradox	32	32	—	55.0	17.0	20	0
LCS	LCS Steel AX	32	21	—	56.2	15.6	70	5
OGI	Smith's Gold	30	27	25	58.0	16.7	10	10
AgriPro	AP Roadrunner	30	—	—	53.7	16.2	20	0
OGI	Bentley	30	28	25	55.4	16.0	65	10
AGSECO	AG Radical	28	28	—	55.9	16.0	60	10
OGI	Breadbox	28	—	—	56.0	17.7	20	0
OGI	Big Country	27	24	24	57.3	18.4	0	0
OGI	Uncharted	25	26	26	55.7	17.9	20	5
OGI	Gallagher	18	21	21	53.5	17.8	15	5
Experimentals								
OSU	OK20708	43	—	—	56.6	16.0	40	5
OSU	OK198417C	32	—	—	59.2	17.0	5	0
OSU	OK16107133-19-4	30	—	—	54.3	17.7	10	5
OSU	OK16107133-19-3	24	22	—	54.5	17.6	10	5
OSU	OK16103083	16	22	—	50.8	16.9	60	0
Mean		32	28	28	56.7	16.5	33	7
LSD (0.05)		7	6	5	1.3	0.8	—	—

Notes: Grain yield and protein concentration were adjusted to 12% moisture content. Shaded values were not statistically different from the highest value within a column. There was no variety trial in the 2021-2022 growing season, thus three-year averages represent results from 2024, 2023 and 2021 harvest year. There was a severe pressure of stripe rust and moderate pressure of leaf rust. Disease severity ratings were collected on May 5 (around milky ripe stage). The trial received 1½" rainfall between harvest maturity and the time it could be harvested, and disease pressure was high, possibly driving down test weight. Em Dash "—" = data not available."



Kingfisher Wheat Variety Trial

wheat.okstate.edu						
Cooperator: LJ Reheman Planting and Harvest Dates: 11/08/2023 and 06/11/2024 Management: Grain-Only Tillage: No-Till			Extension Educator: Bryan Kennedy Previous Crop: Wheat Soil Type: Renfrow clay loam Soil Test: pH=5.6, N=79, P=31, K=278			
Licensee	Variety	Grain Yield 2023-24 --- bu/ac---	Test Weight 2023-24 -- lb/bu --	Wheat Protein 2023-24 -- % --	Stripe rust severity April -- % --	Leaf rust severity May -- % --
OGI	High Cotton	55	60.0	12.4	10	5
OGI	Strad CL+	55	60.1	14.0	2	3
OGI	Big Country	54	59.5	13.0	1	3
OGI	OK Corral	53	58.5	13.1	1	20
OGI	Green Hammer	53	59.9	14.3	13	10
OGI	Firebox	52	61.2	13.7	8	5
OGI	Paradox	51	59.0	12.1	4	5
OGI	Gallagher	51	58.6	12.6	35	5
OGI	Showdown	51	59.5	12.3	5	30
PlainsGold	Canvas	51	59.1	11.6	23	40
OGI	Doublestop CL+	49	61.2	14.9	5	30
AgriPro	AP Prolific	49	59.2	12.8	25	10
LCS	LCS Atomic AX	49	58.6	12.5	8	40
OGI	Uncharted	49	59.2	13.7	10	15
KWA	KS Providence	49	57.4	13.2	5	0
LCS	LCS Helix AX	49	58.6	11.4	35	25
AGSECO	AG Golden	48	57.5	11.2	30	2
Westbred	WB4792	48	60.9	11.9	10	0
OGI	Breadbox	48	59.4	11.9	2	5
OGI	Smith's Gold	47	59.9	12.6	3	20
PlainsGold	Crescent AX	45	58.4	11.6	23	10
AgriPro	AP Roadrunner	45	57.3	12.9	3	10
Croplan	CP7017AX	35	57.1	11.4	40	25
Westbred	WB4422	35	59.5	12.2	15	5
OGI	Butler's Gold (late-planted)	25	59.4	13.8	3	15
Experimentals						
OSU	OK198417C	55	61.6	14.1	3	0
OSU	OK20708	51	58.8	12.1	3	0
OSU	OK16107133-19-4	50	57.7	14.4	18	10
OSU	OK16107133-19-3	46	59.2	14.0	5	25
Mean		48	59.2	12.8	12	13
LSD (0.05)		6	1.1	0.7	—	—

Notes: Grain yield was adjusted to 12% moisture content. Shaded values were not statistically different from the highest value within a column. Stripe and leaf rust fungal diseases were observed at moderate to severe pressure in the season. Severity ratings for stripe rust were collected on April 17 (around boot stage). Severity ratings for leaf rust was collected on May 9 (around watery ripe stage). Butler's Gold late planted was planted on 12/07/2023. Em Dash "—" = data not available."



Lahoma Regional Wheat Variety Trial

wheat.okstate.edu

Cooperator: OSU North Central Research Station
Planting and Harvest Dates: 10/11/2023 and 06/06/2024
Management: Grain-Only
Tillage: Conventional

Extension Educator: Rick Nelson
Previous Crop: Austrian winter peas
Soil Type: Pond Creek silt loam
Soil Test: pH=6.5, N=140, P=30, K=252

Licensee	Variety	Grain Yield			Test Weight	Wheat Protein	Stripe rust severity
		2023-24	2-Year	3-year			
		-----bu/ac-----			-- lb/bu --	-- % --	-- % --
OGI	Paradox	79	74	78	61.9	12.0	0
AgriPro	AP24 AX	77	—	—	59.3	11.8	13
AgriPro	AP Roadrunner	76	—	—	60.2	11.7	23
PlainsGold	Canvas	76	73	77	60.6	11.5	15
PlainsGold	CO18035RA	75	—	—	60.6	11.8	30
LCS	LCS Radar	74	—	—	61.7	12.3	4
OGI	Gallagher	74	70	72	62.5	12.5	8
OGI	Showdown	72	70	75	60.5	11.8	8
LCS	LCS Warbird AX	72	—	—	62.1	12.0	10
LCS	LCS Galloway AX	72	69	—	61.7	13.1	18
OGI	Breadbox	70	—	—	62.2	11.9	2
OGI	Strad CL+	70	62	64	61.8	14.0	4
PlainsGold	Kivari AX	69	70	—	58.9	10.8	65
LCS	LCS Steel AX	69	66	72	59.8	11.9	35
AGSECO	AG Golden	69	68	76	60.0	11.9	15
OGI	High Cotton	68	65	—	62.6	12.2	0
OGI	OK Corral	68	64	68	60.6	11.4	0
AgriPro	Bob Dole	68	70	73	61.3	12.7	13
Armor	AR Iron Eagle 22AX	67	—	—	60.0	11.5	30
OGI	Doublestop CL+	67	63	66	63.8	15.0	2
Westbred	WB4401	67	65	70	62.8	12.0	8
PlainsGold	Byrd CL Plus	67	—	—	60.4	12.1	45
Armor	AR Turret 25	65	—	—	61.7	12.5	0
Croplan	CP7017AX	65	64	72	60.7	11.0	20
Croplan	CP7869	65	—	—	61.5	12.6	0
KWA	KS Providence	65	71	73	59.0	13.1	10
LCS	LCS Atomic AX	65	65	69	60.4	12.2	4
LCS	LCS Helix AX	65	67	74	61.1	12.0	25
OGI	Firebox	64	62	—	62.8	13.2	5
KWA	KS Mako	64	—	—	61.8	11.4	13
AgriPro	AP Bigfoot	64	61	—	59.7	11.7	35
Westbred	WB4422	64	66	75	60.0	12.0	35
PLainsGold	Whistler	63	—	—	60.9	11.1	35
PlainsGold	Crescent AX	63	66	70	61.0	11.4	30
OGI	Smith's Gold	63	61	66	62.6	12.1	0
LCS	LCS Runner	63	—	—	59.5	11.4	33
AgriPro	SY Wolverine	62	65	—	58.7	12.2	18

OGI	Big Country	62	65	63	62.2	12.5	0
AgriPro	AP Prolific	61	66	74	59.3	13.2	13
LCS	LCS Photon AX	61	59	65	59.2	11.6	68
Westbred	WB4792	60	59	64	63.9	11.3	15
OGI	Uncharted	58	55	58	60.8	12.5	10
Croplan	CP7220	58		—	62.7	12.3	15
AGSECO	AG Radical	57	65	72	59.2	12.2	68
OGI	Green Hammer	55	61	62	62.1	13.7	5
Westbred	WB4632	51	61	—	57.4	11.5	75
LCS	LCS Julep	49	58	64	60.7	12.1	35
OGI	Butler's Gold	44	50	54	63.1	14.0	0
Experimentals							
OSU	OK16107133-19-3	62	61	—	61.5	13.5	0
OSU	OK16107133-19-4	56	—	—	60.1	13.4	0
OSU	OK198417C	66	—	—	63.4	12.7	0
OSU	OK20708	80	—	—	61.6	12.0	10
Mean		65	64	69	61.0	12.2	18
LSD (0.05)		9	7	10	1.0	0.8	—

Notes: Grain yield and protein concentration were adjusted to 12% moisture content. Shaded values were not statistically different from the highest value within a column. Severe stripe rust pressure was evident at and after heading. Severity ratings were collected on April 18 (around heading). Leaf rust fungal disease was observed at severe pressure after heading. Em Dash "—" = data not available."



Lahoma Regional Intensive Wheat Management Variety Trial

wheat.okstate.edu

Cooperator: OSU North Central Research Station Planting and Harvest Dates: 10/11/2023 and 06/06/2024 Management: Grain-Only, Conventional Tillage Seeding Rate: 1.2 million seeds/acre Nitrogen: 6 lbs/acre 10-34-0 at planting, 30 lbs/ac on 2/14/23, 60 lbs/ac on 3/14/24 Fungicide: 2.9 fl oz/ac Tebecure 3.6 at jointing on 03/14/24 and 6.5 fl oz/ac Nexicor at flag leaf-boot stage on 04/4/24	Extension Educator: Rick Nelson Previous Crop: Austrian winter peas Soil Type: Pond creek silt loam Soil Test: pH=6.5, N=140, P=30, K=252
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Licensee	Variety	Grain Yield			Test Weight	Wheat Protein
		2023-2024	2-Year	3-year	2023-24	2023-24
		-----bu/ac-----			-- lb/bu --	-- % --
Westbred	WB4632	87	85	—	63.0	12.3
LCS	LCS Steel AX	87	77	79	61.8	13.0
AgriPro	AP24 AX	87	—	—	61.1	12.1
PlainsGold	Whistler	86	—	—	61.7	11.6
PlainsGold	Kivari AX	86	82	—	61.5	11.6
LCS	LCS Warbird AX	85	—	—	62.7	12.9
PlainsGold	CO18035RA	85	—	—	62.2	13.6
AgriPro	SY Wolverine	84	80	—	61.5	13.0
AgriPro	AP Bigfoot	84	76	—	62.3	12.7
Armor	AR Iron Eagle 22AX	82	—	—	63.0	12.2
Croplan	CP7017AX	82	78	80	62.4	12.3
LCS	LCS Photon AX	81	75	76	60.9	12.8
OGL	Showdown	81	82	83	61.5	12.7
LCS	LCS Helix AX	80	77	80	62.7	12.6
LCS	LCS Radar	80	—	—	62.1	12.8
PlainsGold	Byrd CL Plus	79	—	—	61.3	12.3
AGSECO	AG Golden	79	77	80	60.3	12.5
LCS	LCS Runner	79	—	—	61.8	12.4
AgriPro	AP Roadrunner	79	—	—	60.3	13.1
AgriPro	Bob Dole	79	78	80	62.2	13.9
OGL	Breadbox	79	—	—	62.0	12.9
PlainsGold	Crescent AX	79	78	80	62.1	12.7
OGL	Gallagher	79	82	82	62.4	13.2
PlainsGold	Canvas	78	80	83	62.7	11.9
OGL	Strad CL+	78	74	74	61.6	14.1
KWA	KS Mako	78	—	—	63.4	13.0
OGL	High Cotton	76	75	—	63.3	12.7
KWA	KS Providence	76	80	84	59.5	14.4
OGL	Paradox	76	79	81	61.2	13.1
LCS	LCS Galloway AX	75	78	—	62.7	13.1
Westbred	WB4792	75	69	72	64.9	12.7
OGL	OK Corral	75	78	75	61.1	12.4
Croplan	CP7869	75	—	—	61.3	13.4
OGL	Firebox	72	73	—	63.3	13.6
Westbred	WB4401	71	74	75	63.3	12.3

Westbred	WB4422	71	75	82	62.8	13.1
OGL	Big Country	70	74	70	62.9	12.9
AgriPro	AP Prolific	69	75	79	60.2	14.2
OGL	Green Hammer	69	75	75	62.4	15.0
Armor	AR Turret 25	68	—	—	61.2	13.4
OGL	Smith's Gold	68	69	73	63.1	12.8
AGSECO	AG Radical	67	71	76	61.0	13.1
Croplan	CP7220	67	—	—	62.6	13.1
LCS	LCS Atomic AX	66	70	76	60.9	13.3
OGL	Doublestop CL+	64	69	71	63.4	15.0
OGL	Uncharted	63	64	64	61.0	13.3
LCS	LCS Julep	59	68	71	62.0	13.6
OGL	Butler's Gold	45	55	60	63.5	15.0
Experimentals						
OSU	OK16107133-19-3	64	64	—	61.0	13.7
OSU	OK16107133-19-4	58	—	—	59.3	13.7
OSU	OK198417C	72	—	—	63.4	13.6
OSU	OK20708	89	—	—	62.3	12.6
Mean		75	75	76	62.0	13.1
LSD (0.05)		9	7	7	0.8	0.8

Notes: Grain yield and protein concentration were adjusted to 12% moisture content. Shaded values were not statistically different from the highest value within a column. Stripe and leaf rust fungal diseases were observed at severe pressure in the season. Em Dash "—" = data not available."



Lahoma Wheat Variety Trial Standard vs. Intensive Management Comparison

wheat.okstate.edu

Cooperator: OSU North Central Research Station Planting and Harvest Dates: 10/27/2022 and 06/15/2023 Management: Grain-Only, Conventional Tillage Seeding Rate: 1.2 million seeds/acre Nitrogen: 6 lbs/acre 10-34-0 at planting, 30 lbs/ac on 2/14/24, 60 lbs/ac on 3/14/24 Fungicide: 4 fl oz/ac Tebucure 3.6 at jointing on 03/14/24 and 13 fl oz/ac Nexicor at flag leaf-boot stage on 04/4/24	Extension Educator: Rick Nelson Previous Crop: Austrian winter peas Soil Type: Pond creek silt loam Soil Test: pH=6.5, N=140, P=30, K=252
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Licensee	Variety	Grain Yield			Test Weight			Wheat Protein		
		Standard	Intensive	Diff	Standard	Intensive	Diff	Standard	Intensive	Diff
		-----bu/ac-----			-----lb/bu-----			-----%-----		
OGL	Paradox	79	76	-3	61.9	61.2	-0.7	12.0	13.1	1.1
AgriPro	AP24 AX	77	87	10	59.3	61.1	1.8	11.8	12.1	0.3
AgriPro	AP Roadrunner	76	79	3	60.2	60.3	0.1	11.7	13.1	1.4
PlainsGold	Canvas	76	78	2	60.6	62.7	2.1	11.5	11.9	0.4
PlainsGold	CO18035RA	75	85	10	60.6	62.2	1.6	11.8	13.6	1.8
LCS	LCS Radar	74	80	6	61.7	62.1	0.4	12.3	12.8	0.5
OGL	Gallagher	74	79	5	62.5	62.4	-0.1	12.5	13.2	0.7
OGL	Showdown	72	81	9	60.5	61.5	1.0	11.8	12.7	0.9
LCS	LCS Warbird AX	72	85	13	62.1	62.7	0.6	12.0	12.9	0.9
LCS	LCS Galloway AX	72	75	3	61.7	62.7	1.0	13.1	13.1	0.0
OGL	Breadbox	70	79	9	62.2	62.0	-0.2	11.9	12.9	1.0
OGL	Strad CL+	70	78	8	61.8	61.6	-0.2	14.0	14.1	0.1
PlainsGold	Kivari AX	69	86	17	58.9	61.5	2.6	10.8	11.6	0.8
LCS	LCS Steel AX	69	87	18	59.8	61.8	2.0	11.9	13.0	1.1
AGSECO	AG Golden	69	79	10	60.0	60.3	0.3	11.9	12.5	0.6
OGL	High Cotton	68	76	8	62.6	63.3	0.7	12.2	12.7	0.5
OGL	OK Corral	68	75	7	60.6	61.1	0.5	11.4	12.4	1.0
AgriPro	Bob Dole	68	79	11	61.3	62.2	0.9	12.7	13.9	1.2
Armor	AR Iron Eagle 22AX	67	82	15	60.0	63.0	3.0	11.5	12.2	0.7
OGL	Doublestop CL+	67	64	-3	63.8	63.4	-0.4	15.0	15.0	0.0
Westbred	WB4401	67	71	4	62.8	63.3	0.5	12.0	12.3	0.3
PlainsGold	Byrd CL Plus	67	79	12	60.4	61.3	0.9	12.1	12.3	0.2
Armor	AR Turret 25	65	68	3	61.7	61.2	-0.5	12.5	13.4	0.9
Croplan	CP7017AX	65	82	17	60.7	62.4	1.7	11.0	12.3	1.3
Croplan	CP7869	65	75	10	61.5	61.3	-0.2	12.6	13.4	0.8
KWA	KS Providence	65	76	11	59.0	59.5	0.5	13.1	14.4	1.3
LCS	LCS Atomic AX	65	66	1	60.4	60.9	0.5	12.2	13.3	1.1
LCS	LCS Helix AX	65	80	15	61.1	62.7	1.6	12.0	12.6	0.6
OGL	Firebox	64	72	8	62.8	63.3	0.5	13.2	13.6	0.4
KWA	KS Mako	64	78	14	61.8	63.4	1.6	11.4	13.0	1.6
AgriPro	AP Bigfoot	64	84	20	59.7	62.3	2.6	11.7	12.7	1.0

Westbred	WB4422	64	71	7	60.0	62.8	2.8	12.0	13.1	1.1
PlainsGold	Whistler	63	86	23	60.9	61.7	0.8	11.1	11.6	0.5
PlainsGold	Crescent AX	63	79	16	61.0	62.1	1.1	11.4	12.7	1.3
OGL	Smith's Gold	63	68	5	62.6	63.1	0.5	12.1	12.8	0.7
LCS	LCS Runne	63	79	16	59.5	61.8	2.3	11.4	12.4	1.0
AgriPro	SY Wolverine	62	84	22	58.7	61.5	2.8	12.2	13.0	0.8
OGL	Big Country	62	70	8	62.2	62.9	0.7	12.5	12.9	0.4
AgriPro	AP Prolific	61	69	8	59.3	60.2	0.9	13.2	14.2	1.0
LCS	LCS Photon AX	61	81	20	59.2	60.9	1.7	11.6	12.8	1.2
Westbred	WB4792	60	75	15	63.9	64.9	1.0	11.3	12.7	1.4
OGL	Uncharted	58	63	5	60.8	61.0	0.2	12.5	13.3	0.8
Croplan	CP7220	58	67	9	62.7	62.6	-0.1	12.3	13.1	0.8
AGSECO	AG Radical	57	67	10	59.2	61.0	1.8	12.2	13.3	0.9
OGL	Green Hammer	55	69	14	62.1	62.4	0.3	13.7	15.0	1.3
Westbred	WB4632	51	87	36	57.4	63.0	5.6	11.5	12.3	0.8
LCS	LCS Julep	49	59	10	60.7	62.0	1.3	12.1	13.6	1.5
OGL	Butler's Gold	44	45	1	63.1	63.5	0.4	14.0	15.0	1.0
Experimentals										
OSU	OK16107133-19-3	62	64	2	61.5	61.0	-0.5	13.5	13.7	0.2
OSU	OK16107133-19-4	56	58	2	60.1	59.2	-0.8	13.4	13.7	0.3
OSU	OK198417C	66	72	6	63.4	63.4	0.0	12.7	13.6	0.9
OSU	OK20708	80	89	9	61.6	62.3	0.7	12.0	12.6	0.6
Mean		65	75	10	61.0	62.0	1.0	12.2	13.1	0.9
LSD (0.05)		9	9	—	1.0	0.8	—	0.8	0.8	—

Notes: Grain yield and protein concentration were adjusted to 12% moisture content. Shaded values were not statistically different from the highest value within a column. Severe stripe rust pressure was evident at and after heading. Severity ratings were collected on April 18 (around heading). Leaf rust fungal disease was observed at severe pressure after heading. Em Dash "—" = data not available.



Walters Dual-Purpose Wheat Variety Trial

wheat.okstate.edu						
Cooperator: Jimmy Kinder Planting and Harvest Dates: 09/25/2023 and 06/07/2024 Management: Dual-Purpose Tillage: No-Till			Extension Educator: Kimbreley Davis Previous Crop: Wheat Soil Type: Foard Silt Loam Soil Test: pH=7.5, N=27, P=33, K=323			
Licensee	Variety	Grain Yield			Test Weight	Wheat Protein
		2023-24 <i>dual purpose</i>	2022-23 <i>grain-only</i>	2021-22 <i>dual purpose</i>	2023-24	2023-24
		-----bu/ac-----			-- lb/bu --	-- % --
OGI	Showdown	34	50	23	57.4	10.4
OGI	Paradox	28	—	—	57.7	10.3
OGI	Doublestop CL+	27	45	22	57.8	13.0
PlainsGold	Canvas	27	46	22	57.2	10.1
Westbred	WB4792	26	40	21	59.2	10.7
LCS	LCS Steel AX	26	—	—	55.8	10.0
OGI	Breadbox	25	—	—	57.3	10.2
OGI	Firebox	25	—	—	58.4	11.8
OGI	High Cotton	25	41	—	59.3	11.0
OGI	Smith's Gold	25	41	20	57.9	11.1
OGI	Iba	25	41	—	57.7	11.1
AGSECO	AG Golden	25	46	—	54.6	10.1
OGI	Gallagher	24	41	19	58.0	10.7
OGI	Strad CL+	24	36	19	58.2	12.6
Westbred	WB4422	24	46	—	56.1	10.5
KWA	KS Providence	24	—	—	56.4	11.5
OGI	Uncharted	24	38	18	58.2	11.7
OGI	Green Hammer	23	44	15	58.8	12.5
AgriPro	AP Roadrunner	23	—	20	55.2	10.6
LCS	LCS Atomic AX	21	45	22	56.8	10.7
LCS	LCS Julep	21	—	—	57.4	11.4
AGSECO	AG Radical	20	46	22	53.4	11.5
Westbred	WB4401	18	43	11	54.6	10.7
PlainsGold	Crescent AX	14	45	—	57.5	10.5
Experimentals						
OSU	OK16107133-19-3	26	41	—	56.9	12.5
OSU	OK16107133-19-4	28	—	—	56.3	12.3
OSU	OK198417C	29	—	—	58.5	12.0
OSU	OK20708	27	—	—	58.3	11.0
Mean		25	42	20	57.2	11.2
LSD (0.05)		4	8	3	1.7	0.4

Notes: Grain yield and protein concentration were adjusted to 12% moisture content. Shaded values are not statistically different from the highest value within a column. Plots were grazed from 11/11/23 to 02/26/24 at a stocking rate of 185 pounds of animal body weight per acre. The trial received over 2 inches of rainfall between harvest maturity and the time it could be harvested, thus driving down test weight. Stripe rust fungal disease was observed at moderate to severe pressure in the season. Due to the drought, plots were not grazed during the 2022-2023 growing season. Therefore, data from previous years were not be combined with the current year to provide long-term averages. There was no harvest data for OK Corral due to deer damage. Em Dash "—" = data not available."



Heading Date and Plant Height

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Licensee	Variety	Altus	Chickasha	Hooker	Lahoma	Stillwater	Altus	Chickasha	Hooker	Lahoma	Stillwater
----- 50% heading-----						----- plant height at harvest (cm)-----					
AgriPro	AP Bigfoot	4/13	4/10	4/26	4/17	4/12	78	102	74	80	85
AgriPro	AP Prolific	—	4/15	—	4/17	4/13	—	102	—	76	83
AgriPro	AP Roadrunner	4/14	4/15	4/26	4/14	4/19	83	120	76	84	78
AgriPro	AP Sunbird	4/14	—	4/25	—	4/12	77	—	77	—	82
AgriPro	AP24 AX	4/11	4/8	4/26	4/14	4/14	90	101	79	88	84
AgriPro	Bob Dole	—	4/8	—	4/14	4/15	—	103	—	92	91
AgriPro	SY Wolverine	4/14	4/11	4/28	4/14	4/13	69	96	72	79	81
AGSECO	AG Golden	4/16	4/15	4/28	4/19	4/16	71	95	79	75	76
AGSECO	AG Radical	4/15	4/15	—	4/14	4/16	70	96	—	77	74
Armor	AR Iron Eagle 22AX	4/15	4/15	4/25	4/17	4/19	77	91	74	78	76
Armor	AR Turret 25	4/16	4/23	4/26	4/23	4/23	78	91	75	80	77
Croplan	CP7017AX	4/14	4/15	4/26	4/17	4/19	83	94	77	79	74
Croplan	CP7220	4/13	4/15	4/27	4/17	4/15	80	95	73	81	79
Croplan	CP7869	4/17	4/23	4/26	4/23	4/25	81	98	76	83	82
KWA	KS Mako	4/12	4/15	4/25	4/14	4/16	78	90	75	75	79
KWA	KS Providence	4/11	4/8	4/26	4/14	4/14	93	100	76	92	78
LCS	LCS Atomic AX	4/13	4/15	4/24	4/17	4/16	90	106	77	90	81
LCS	LCS Galloway AX	4/12	4/15	4/26	4/14	4/18	83	107	81	90	83
LCS	LCS Helix AX	4/10	4/9	4/24	4/17	4/11	86	103	80	91	91
LCS	LCS Julep	4/23	4/22	4/29	4/20	4/22	64	100	79	89	80
LCS	LCS Photon AX	4/13	4/10	4/26	4/14	4/12	74	101	81	85	81
LCS	LCS Radar	4/15	4/18	4/24	4/19	4/22	82	99	81	83	73
LCS	LCS Runner	4/15	4/15	4/25	4/14	4/18	77	103	76	83	81
LCS	LCS Steel AX	4/15	4/18	4/29	4/14	4/22	82	105	82	85	79
LCS	LCS Warbird AX	4/12	4/15	4/24	4/14	4/18	87	100	70	88	80
OGI	Bentley	4/8	—	4/27	—	4/18	75	—	90	—	91
OGI	Big Country	—	4/15	—	4/19	4/18	—	92	—	84	84
OGI	Breadbox	4/13	4/15	4/27	4/19	4/15	81	101	78	82	83
OGI	Breakthrough	—	—	4/26	—	4/13	—	—	77	—	82
OGI	Butler's Gold	—	—	4/21	4/14	4/9	—	—	81	75	81
OGI	Butler's Gold (late-planted)	4/13	4/15	—	—	—	80	96	—	—	—
OGI	Doublestop CL+	4/13	4/15	4/27	4/19	4/17	92	101	74	88	89
OGI	Firebox	4/12	4/15	—	4/15	4/17	84	102	—	81	82
OGI	Gallagher	4/19	4/12	4/26	4/18	4/17	83	100	80	89	80
OGI	Green Hammer	4/9	4/15	—	4/15	4/14	90	103	—	85	87
OGI	High Cotton	4/11	4/15	4/26	4/15	4/15	82	82	76	79	86
OGI	Iba	4/13	—	4/27	—	4/14	78	—	80	—	84
OGI	OK Corral	4/13	4/15	4/28	4/19	4/17	90	103	75	80	83
OGI	Paradox	4/13	4/15	4/27	4/19	4/15	66	94	79	83	81
OGI	Showdown	4/10	4/15	4/26	4/17	4/14	93	201	90	82	83

OGI	Smith's Gold	4/11	4/12	4/26	4/18	4/17	76	97	74	82	74	
OGI	Strad CL+	4/10	4/11	4/25	4/15	4/15	93	102	86	96	80	
OGI	Uncharted	4/7	4/10	—	4/14	4/14	83	104	—	72	84	
PlainsGold	Byrd CL Plus	4/14	4/15	4/27	4/18	4/20	83	105	82	85	80	
PlainsGold	Canvas	4/14	4/15	4/27	4/18	4/21	80	102	75	87	75	
PlainsGold	Crescent AX	4/8	4/8	4/24	4/14	4/10	83	100	80	86	88	
PlainsGold	Kivari AX	4/11	4/11	4/27	4/14	4/16	80	102	84	81	81	
PlainsGold	Whistler	4/23	4/25	4/29	4/23	4/27	74	101	81	82	81	
PlainsGold	CO18035RA	4/13	4/15	4/28	4/16	4/20	85	106	83	89	82	
Watley	TAM 112	—	—	4/24	—	4/13	—	—	80	—	83	
Watley	TAM115	—	—	4/28	—	4/18	—	—	78	—	81	
Watley	TAM204	—	—	4/25	—	4/19	—	—	80	—	79	
Westbred	WB4401	4/7	4/8	4/24	4/14	4/14	82	101	76	75	83	
Westbred	WB4422	4/13	4/15	4/28	4/15	4/18	72	103	79	83	82	
Westbred	WB4632	4/14	4/15	4/27	4/16	4/18	61	96	73	79	71	
Westbred	WB4792	4/13	4/15	4/29	4/19	4/18	87	95	79	75	84	
Experimentals												
OSU	OK16103083	—	—	—	—	4/22	—	—	—	—	79	
OSU	OK16107133-19-3	4/13	4/15	—	4/17	4/18	82	94	—	83	78	
OSU	OK16107133-19-4	4/13	4/15	—	4/17	4/19	80	97	—	83	81	
OSU	OK198417C	4/10	4/15	4/26	4/17	4/16	101	102	84	99	86	
OSU	OK20708	4/14	—	4/27	4/19	4/16	82	—	80	85	81	
Mean		4/13	4/14	4/26	4/16	4/16	81	100	78	83	81	

Notes: Em Dash "—" = data not available."



Seed Size and Seeding Rate Wheat Variety Trials

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Licensee	Variety		Grain Only			Dual Purpose
			Standard Management	Intensive Management	Panhandle	
		--seeds/lb--	-----seeds/ac-----			--seeds/ac--
Westbred	WB4632	11,164	669,840	1,200,000	502,380	1,339,680
AgriPro	AP Sunbird	11,210	672,593	1,200,000	504,444	1,345,185
OGI	Green Hammer	11,238	674,257	1,200,000	505,693	1,348,515
OGI	High Cotton	11,494	689,620	1,200,000	517,215	1,379,241
Armor	AR Turret 25	11,523	691,371	1,200,000	518,528	1,382,741
Croplan	CP7220	11,552	693,130	1,200,000	519,847	1,386,260
Croplan	CP7869	11,552	693,130	1,200,000	519,847	1,386,260
PlainsGold	Crescent AX	11,885	713,089	1,200,000	534,817	1,426,178
OGI	Showdown	11,885	713,089	1,200,000	534,817	1,426,178
PlainsGold	Kivari AX	12,172	730,295	1,200,000	547,721	1,460,590
LCS	LCS Helix AX	12,404	744,262	1,200,000	558,197	1,488,525
OGI	Uncharted	12,404	744,262	1,200,000	558,197	1,488,525
OGI	Breadbox	12,541	752,486	1,200,000	564,365	1,504,972
PlainsGold	Byrd CL Plus	12,541	752,486	1,200,000	564,365	1,504,972
OGI	Doublestop CL+	12,682	760,894	1,200,000	570,670	1,521,788
OGI	Strad CL+	12,717	763,025	1,200,000	572,269	1,526,050
KWA	KS Providence	13,005	780,300	1,200,000	585,225	1,560,600
OGI	Bentley	13,046	782,759	1,200,000	587,069	1,565,517
LCS	LCS Julep	13,432	805,917	1,200,000	604,438	1,611,834
LCS	LCS Runner	13,634	818,018	1,200,000	613,514	1,636,036
PlainsGold	Canvas	13,675	820,482	1,200,000	615,361	1,640,964
PlainsGold	CO18035RA	13,675	820,482	1,200,000	615,361	1,640,964
AgriPro	AP Roadrunner	13,758	825,455	1,200,000	619,091	1,650,909
LCS	LCS Galloway AX	13,758	825,455	1,200,000	619,091	1,650,909
Armor	AR Iron Eagle 22	13,799	827,964	1,200,000	620,973	1,655,927
Croplan	CP7017AX	13,841	830,488	1,200,000	622,866	1,660,976
OGI	Paradox	13,884	833,028	1,200,000	624,771	1,666,055
Westbred	WB4422	13,940	836,400	1,200,000	627,300	1,672,800
AgriPro	Bob Dole	13,969	838,154	1,200,000	628,615	1,676,308
OGI	Butler's Gold	14,012	840,741	1,200,000	630,556	1,681,481
KWA	KS Mako	14,015	840,900	1,200,000	630,675	1,681,800
PlainsGold	Whistler	14,099	845,963	1,200,000	634,472	1,691,925
Watley	TAM115	14,322	859,306	1,200,000	644,479	1,718,612
LCS	LCS Photon AX	14,413	864,762	1,200,000	648,571	1,729,524
OGI	Smith's Gold	14,645	878,710	1,200,000	659,032	1,757,419
Watley	TAM112	14,693	881,553	1,200,000	661,165	1,763,107
OGI	Big Country	14,788	887,296	1,200,000	665,472	1,774,593

LCS	LCS Atomic AX	14,885	893,115	1,200,000	669,836	1,786,230
AGSECO	AG Radical	15,184	911,037	1,200,000	683,278	1,822,074
OGI	Gallagher	15,548	932,877	1,200,000	699,658	1,865,753
LCS	LCS Steel AX	15,764	945,833	1,200,000	709,375	1,891,667
LCS	LCS Warbird AX	15,764	945,833	1,200,000	709,375	1,891,667
Westbred	WB4792	15,871	952,260	1,200,000	714,195	1,904,520
AgriPro	AP24 AX	15,874	952,448	1,200,000	714,336	1,904,895
LCS	LCS Radar	15,874	952,448	1,200,000	714,336	1,904,895
OGI	Firebox	15,930	955,789	1,200,000	716,842	1,911,579
OGI	Breakthrough	16,272	976,344	1,200,000	732,258	1,952,688
Watley	TAM204	16,272	976,344	1,200,000	732,258	1,952,688
AgriPro	SY Wolverine	16,331	979,856	1,200,000	734,892	1,959,712
AgriPro	AP Prolific	16,630	997,802	1,200,000	748,352	1,995,604
OGI	OK Corral	17,004	1,020,225	1,200,000	765,169	2,040,449
OGI	Iba	17,068	1,024,060	1,200,000	768,045	2,048,120
Westbred	WB4401	17,314	1,038,840	1,200,000	779,130	2,077,680
AGSECO	AG Golden	17,395	1,043,678	1,200,000	782,759	2,087,356
AgriPro	AP Bigfoot	19,402	1,164,103	1,200,000	873,077	2,328,205
Experimentals						
OSU	OK20708	11,762	705,699	1,200,000	529,275	1,411,399
OSU	OK198417C	12,371	742,234	1,200,000	556,676	1,484,469
OSU	OK16107133-19-3	12,473	748,352	1,200,000	561,264	1,496,703
OSU	OK16107133-19-4	12,861	771,671	1,200,000	578,754	1,543,343
OSU	OK16103083	13,884	833,028	1,200,000	624,771	1,666,055
Mean		14,018	841,091	1,200,000	630,819	1,682,183

Notes: The seeding rate column "Grain-only standard management" represents the number of seeds per acre for each variety when planted at 60 pounds per acre. Thus, seeding rate was estimated by multiplying the amount of seeds per pound by 60 pounds per acre per variety. The reported seeds per pound reflect only the seed source used to plant the 2024 trials and may not approximate the long-term average for a given variety. All variety trial locations were sown at 60 pounds per acre, except for the dual-purpose trials at El Reno and Walters that were sown at 120 pounds per acre, the intensive wheat management trials at Apache, Chickasha and Lahoma that were sown at 1.2 million seeds per acre, and the Panhandle trials at Balko and Hooker that were sown at 45 pounds per acre.



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Fall Forage Production and First Hollow Stem Date for Wheat Varieties During the 2023-2024 Crop Year

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Introduction

Fall forage production potential is one of the major considerations in deciding which variety to plant. Dual-purpose wheat producers, for example, may find varietal characteristics such as grain yield after grazing and disease resistance to be more important selection criteria than an advantage in early forage production potential. Forage-only producers might place more importance on planting an awnless wheat variety or one that germinates readily in hot soil conditions. Ultimately though, fall forage production is a selection criterion that should be considered. For more information on variety characteristics, please refer to OSU Fact Sheet PSS-2142 Wheat Variety Comparison Chart.

Fall forage production potential is determined by genetics, management and environmental factors. The purpose of this publication is to quantify some of the genetic differences in wheat forage production potential and grazing duration among the most popular varieties grown in Oklahoma. Management factors such as planting date, seeding rate and soil fertility are very influential and are sometimes more important than variety selection in determining forage production. Environmental factors such as rainfall amount and distribution and temperature also play a heavy role in dictating how much fall forage is produced. All of these factors, along with yield potential after grazing and the individual producer's preferences, will determine which variety is best suited for a particular field.

Site Descriptions and Methods

The objective of the fall forage variety trials is to give producers an indication of the fall forage production ability of wheat varieties commonly grown throughout Oklahoma. The forage trials were conducted under Oklahoma State University's Small Grains Variety Performance Tests. During the 2023-2024 growing season, forage trials were conducted at the Chickasha

and Stillwater test sites. Additionally, first hollow stem measurements were collected at both sites in 2024. Weather data for each location are provided in Figures 1 and 2.

A randomized complete block design with four replications was used at each site. Plots at each location were established in a conventionally tilled seedbed. At planting, 5 gal/acre of 10-34-0 was applied in seed furrow at Stillwater and Chickasha. The seeding rate at both locations was 120 pounds per acre. There was only one forage sampling date at each location (Table 1). Forage was collected from the entire plot with a forage harvesting machine and fresh weight was collected. A subsample of each plot was placed in a forced-air dryer after collection for approximately seven days and used to estimate the dry weight of the entire sampling area. Fertility, planting date and forage sampling date information is provided in Table 1.

First hollow stem sampling began at the end of January at the Stillwater and Chickasha locations. It continued every three to four days on a by-variety basis until all varieties reached first hollow stem. Plant samples were collected for each variety by digging an approximately 8-inch section of row and selecting 10 plants randomly from this sample. The largest tiller on each plant was split longitudinally, and the hollow stem below the developing grain head was measured. Varieties were considered to be at first hollow stem when the average measurement of the ten plant samples was 1 ½ centimeters (5/8 inch) or greater. For more information on first hollow stem, refer to OSU Fact Sheet PSS-2147 First Hollow Stem: A Critical Wheat Growth Stage for Dual-Purpose Producers.

Results

As indicated in Figures 1 and 2, the 2023-2024 fall forage production season included moderate temperatures and adequate rainfall, which was responsible for the moderate to high

fall forage production in our fields. The average fall forage production at Stillwater was 2,915 pounds per acre and values ranged from 1,452 to 4,433 pounds per acre (Table 2). Average forage production at Chickasha was 676 pounds per acre and values ranged from 377 pounds to 1220 pounds per acre (Table 3).

First hollow stem data are reported in 'day of year' (day) format for the winter wheat varieties in Table 4. To provide a reference, keep in mind that March 1 is day 60. The fall and winter months were characterized by moist conditions in Stillwater with temperatures somewhat normal. Adequate moisture resulted in timely wheat emergence, good plant development and slightly accelerated the onset of first hollow stem for our region when considering the long-term average. The average winter wheat first hollow stem date at Stillwater was day 48 Feb. 17. This was 21 days earlier than 2023 (March 10), similar to 2022 Feb. 18 and 17 days earlier than the 20-year average (March 6). There was a 21-day difference between the earliest and latest varieties at Stillwater compared to a 14-day difference in 2023 and 32-day difference in 2022. The average winter wheat first hollow stem date for the Chickasha location was 58 Feb. 27. This was 13 days earlier than 2023 (March 12), 8 days earlier than 2022, and 7 days earlier than the 20-year average (March 6). There was a 13-day difference between the earliest and latest varieties at this location, compared to an 11-day difference in 2023 and 36-day difference in 2022.

Acknowledgements

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Seed Sources and Abbreviations

AgriPro = AgriPro|Syngenta Seeds
 AGSECO = AGSECO Inc.
 KWA = Kansas Wheat Alliance
 LCS = Limagrain Cereal Seeds
 OGI = Oklahoma Genetics Inc.
 OSU = Oklahoma State University
 PlainsGold = PlainsGold Seeds
 WestBred = WestBred Wheat

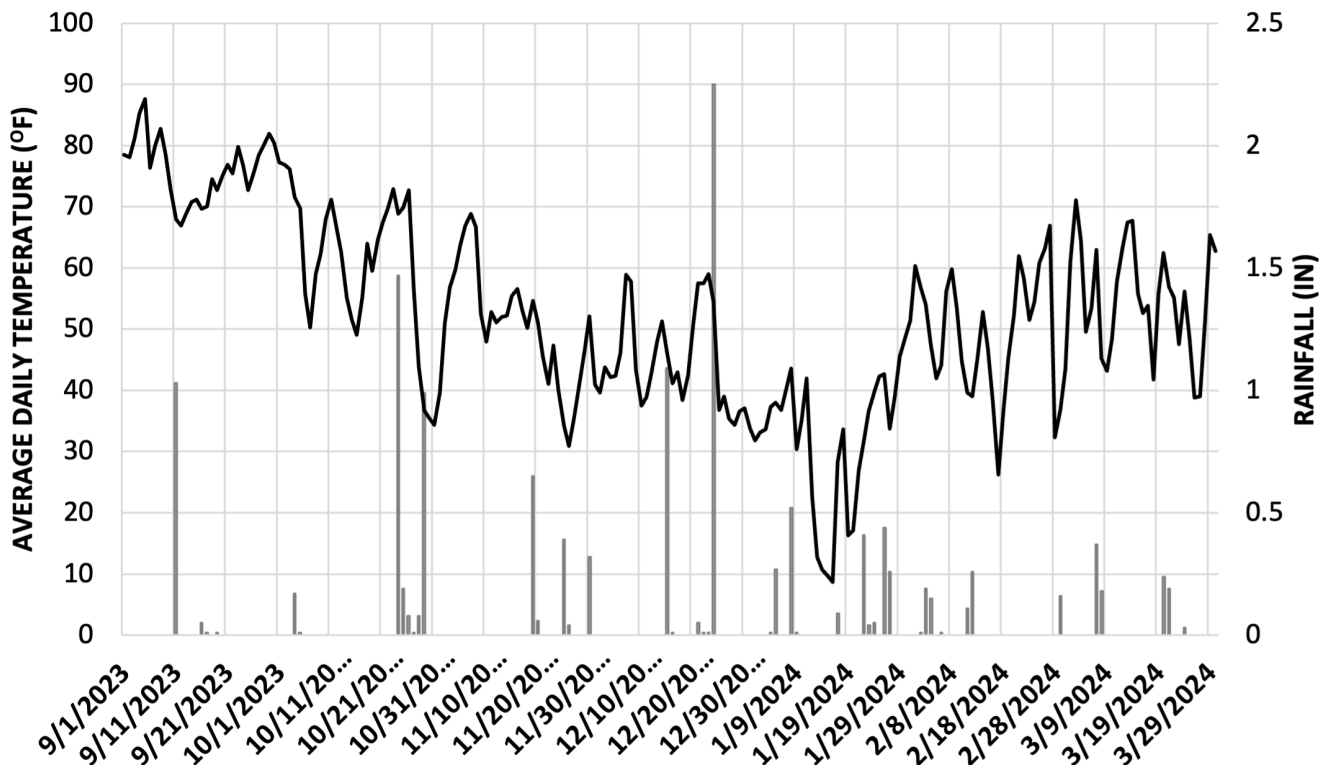


Figure 1. Average daily temperature (line graph) and rainfall (bar chart) from Sept. 1, 2023, to April 1, 2024, at Stillwater, Oklahoma. Weather data courtesy Oklahoma Mesonet.

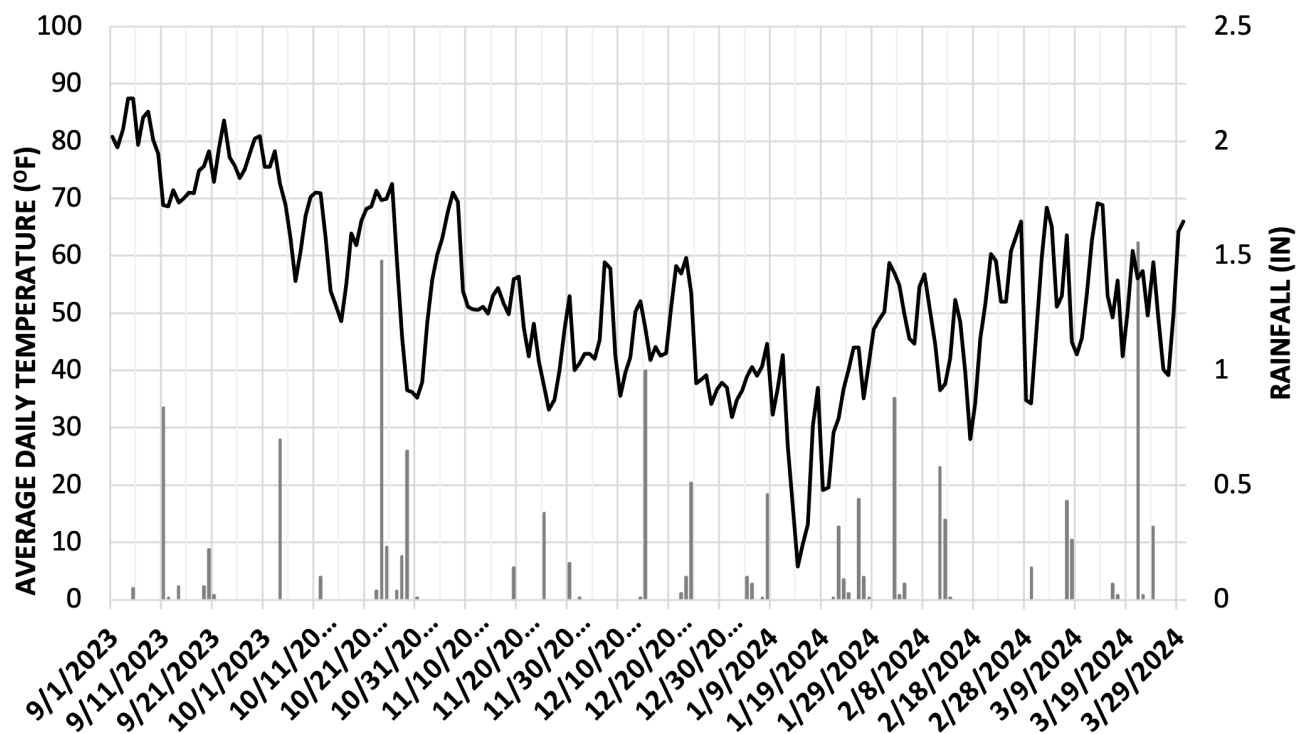


Figure 2. Average daily temperature (line graph) and rainfall (bar chart) from Sept. 1, 2023, to April 1, 2024, at Chickasha, OK. Weather data courtesy Oklahoma Mesonet.

Table 1. The locations, planting and forage sampling dates, and pre-plant soil test information of the trials.

	Planting Date	Sampling Date	pH	nitrate-N (lbs/ac)	STP	STK
Chickasha	9/21/23	12/11/23	8.0	109	45	284
Stillwater	9/18/23	12/6/23	6.4	20	66	208

Notes: STP: soil test P index; STK: soil test K index

Table 2. Fall forage production for the winter wheat varieties at Stillwater, Oklahoma, during the 2023-2024 production year and 2-, 3- and 4-year averages.

Licensee	Variety	2023-2024	2-Year	3-Year	4-Year
-----lbs dry forage/acre-----					
OGI	Firebox	4433	—	—	—
PlainsGold	Kivari AX	4322	—	—	—
OGI	Breadbox	4246	—	—	—
OGI	Iba	4153	2243	2494	2641
AGSECO	AG Golden	3788	—	—	—
OGI	OK Corral	3780	2046	2457	2445
OGI	Gallagher	3778	2162	2442	2532
OGI	Paradox	3766	—	—	—
Westbred	WB4632	3758	—	—	—
OGI	Green Hammer	3626	1984	2377	2460
LCS	LCS Photon AX	3573	2004	2330	2597
LCS	LCS Atomic AX	3404	1914	2155	2504
AgriPro	AP Sunbird	3399	—	—	—
LCS	LCS Helix AX	3263	1789	2051	2136
KWA	KS Providence	3262	—	—	—
OGI	High Cotton	3248	—	—	—
LCS	LCS Warbird AX	3240	—	—	—
OGI	Showdown	3148	1771	2129	2360
Westbred	WB4792	3117	1754	2275	2417
AgriPro	AP Roadrunner	3043	—	—	—
LCS	LCS Runner	2930	—	—	—
KWA	KS Mako	2916	—	—	—
OGI	Strad CL+	2909	1559	2102	2369
OGI	Big Country	2883	1666	2195	2345
LCS	LCS Julep	2882	1588	1946	1973
AgriPro	Bob Dole	2738	—	—	—
PlainsGold	Canvas	2620	1456	2078	2162
Westbred	WB4422	2478	—	—	—
LCS	LCS Radar	2457	—	—	—
OGI	Doublestop CL+	2438	1382	1933	2272
OGI	Smith's Gold	2369	1353	2032	2382
AgriPro	AP Prolific	2257	—	—	—
OGI	Bentley	2215	1209	1898	2511
LCS	LCS Steel AX	2152	—	—	—
PlainsGold	Whistler	2081	—	—	—
AGSECO	AG Radical	2076	1291	1854	2278
LCS	LCS Galloway AX	2032	—	—	—
OGI	Uncharted	2018	1270	1838	2103
PlainsGold	Crescent AX	2007	1190	1738	2110
Westbred	WB4401	1811	1088	1926	2328
AgriPro	AP24AX	1703	—	—	—
Experimentals					
OSU	OK16103083	3181	—	—	—
OSU	OK16107133-19-3	2588	—	—	—

OSU	OK16107133-19-4	2541	—	—	—
OSU	OK198417C	2006	—	—	—
OSU	OK20708	1452	—	—	—
Mean LSD (0.05)		2915	1636	2113	2346
		1094	668	461	380

Notes: Shaded values are not statistically different from the highest-yielding variety within a column. Em-dashes "—" = data not available.

Table 3. Fall forage production for the winter wheat varieties at Chickasha, Oklahoma during the 2023-2024 production year and 2-, 3- and 4-year averages.

Licensee	Variety	2023-2024	2-Year	3-Year	4-Year
-----lbs dry forage/acre-----					
Westbred	WB4632	1220	—	—	—
OGI	OK Corral	1167	819	1236	1670
OGI	Gallagher	900	694	1197	1679
PlainsGold	Kivari AX	888	—	—	—
LCS	LCS Galloway AX	882	—	—	—
AGSECO	AG Radical	761	—	—	—
OGI	Green Hammer	754	571	1145	1702
LCS	LCS Photon AX	679	515	975	1467
OGI	Showdown	670	552	1093	1566
OGI	High Cotton	659	—	—	—
OGI	Doublestop CL+	657	460	876	1491
KWA	KS Providence	636	—	—	—
OGI	Strad CL+	580	418	805	1339
PlainsGold	Crescent AX	514	—	—	—
LCS	LCS Atomic AX	489	—	—	—
Westbred	WB4401	462	402	978	1412
LCS	LCS Steel AX	436	—	—	—
AgriPro	AP Roadrunner	424	—	—	—
OGI	Uncharted	421	484	865	1326
OGI	Smith's Gold	377	374	950	1521
Experimentals					
OSU	OK16107133-19-3	621	—	—	—
Mean LSD (0.05)		676	529	1012	1517
		522	298	NS	296

Notes: Shaded values are not statistically different from the highest-yielding variety within a column. NS; no statistical differences were detected among varieties within a column. Em-dashes "—" = data not available.

Table 4. Occurrence of first hollow stem (day of year) for the winter wheat varieties sown in 2023 and measured in 2024 at Stillwater and Chickasha, Oklahoma.

Licensee	Variety	Stillwater	Chickasha
-----day of year-----			
OGI	High Cotton	39	53
OGI	Gallagher	44	50
OGI	OK Corral	44	57
OGI	Green Hammer	44	50
OGI	Uncharted	44	53
OGI	Paradox	44	—
Westbred	WB4401	44	53
AgriPro	Bob Dole	44	—
AgriPro	AP Roadrunner	44	53
KWA	KS Providence	44	60
LCS	LCS Galloway AX	44	57
AGSECO	AG Radical	44	60
PlainsGold	Kivari AX	44	57
OGI	Smith's Gold	46	53
OGI	Iba	46	—
OGI	Big Country	46	—
OGI	Showdown	46	60
OGI	Bentley	46	—
OGI	Breadbox	46	—
Westbred	WB4422	46	—
Westbred	WB4792	46	—
AgriPro	AP24 AX	46	—
LCS	LCS Atomic AX	46	64
AGSECO	AG Golden	46	—
PlainsGold	Crescent AX	46	60
PlainsGold	Canvas	46	—
OGI	Firebox	50	—
AgriPro	AP Prolific	50	—
AgriPro	AP Sunbird	50	—
LCS	LCS Helix AX	50	—
LCS	LCS Steel AX	50	64
LCS	LCS Radar	50	—
LCS	LCS Runner	50	—
LCS	LCS Photon AX	50	60
PlainsGold	Whistler	50	—
OGI	Strad CL+	53	60
Westbred	WB4632	53	64
KWA	KS Mako	57	—
LCS	LCS Warbird AX	57	—
LCS	LCS Julep	57	—
OGI	Doublestop CL+	60	64
Experimentals			
OSU	OK16103083	44	—
OSU	OK198417C	50	—

OSU	OK20708	50	—
OSU	OK16107133-19-4	60	—
OSU	OK16107133-19-3	60	64
Average		48	58

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