Oklahoma Small Grains Variety Performance Tests 2011 - 2012

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www.wheat.okstate.edu

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2012 WHEAT CROP OVERVIEW

The extreme drought and widespread crop failure of 2011 was followed by a bumper wheat crop in 2011-2012 for most Oklahoma farmers. At the time of writing this report, 2012 Oklahoma wheat production is estimated to be approximately 159.1 million bushels, which is roughly double the 2010-2011 production (Table 1). The production increase came as a result of an approximate 1.1 million acre increase in harvested acres and a 68% increase in average yield.

Table 1. Oklahoma wheat production for 2011 and 2012 as estimated by OK NASS, June 2012

	2011	2012
Harvested Acres	3.2 million	4.3 million
Yield (bu/ac)	22	37
Total bushels	70.4 million	159.1 million

The 2011-2012 wheat production season started slowly. The extreme drought of 2011 completely depleted soil moisture reserves in most of Oklahoma. Oklahoma farmers and ranchers entered the month of September 2011 with almost no soil moisture and extreme heat that quickly dissipated the little rainfall that occurred. Hay supplies were gone along with any remaining pastures, so the desperate need for forage of any kind pushed most producers to roll the dice and dust in wheat for pasture. A break from the extreme heat and a few timely rains in late September allowed wheat to establish itself but did not provide much opportunity for growth. The pattern of just enough moisture to survive persisted throughout the winter in western Oklahoma and the Panhandle.

Central and west-central Oklahoma was a different story. What began as a slow wheat forage year turned into one of the best wheat pasture years in recent memory for farmers and ranchers in this region. Timely rainfall throughout October, November, and December, combined with one of the warmest winters on record, resulted in rapid forage production and outstanding average daily gains. Residual soil nitrogen left by failed crops in 2011 sometimes exceeded 150 lb/ac and spurred wheat forage production onward. In fact, many producers were unable to secure sufficient stocker cattle to keep up with wheat forage.

Temperatures during the 2011-2012 season were never cold enough to hold wheat back more than a day or two. Wheat came out of winter dormancy earlier than normal with an abundance of tillers. Tiller counts of 700 – 1,000 tillers/yd^2 were not uncommon versus the Oklahoma norm of 400 to 600 tillers/yd^2. The abnormally early crop and lush growth in March had everyone concerned about the possibility of a late spring freeze. Outside of the Panhandle, the freeze bullet was dodged with only light injury occurring in a few isolated areas. Temperatures reached 21F the morning of March 20, 2012 causing some damage to wheat heads and injury to wheat stems (see Goodwell Irrigated data). This injury contributed to, but was not the only cause, of lodging at this site.

Weed problems such as feral rye, Italian ryegrass, and rescuegrass were certainly present in 2011-2012 but weed problems were not as severe as previous years. Oklahoma still has a long way to go, however, before we can say our weed control and the associated yield losses are at acceptable levels.

As mentioned previously, the failed crops of 2011 left a great deal of residual nitrogen in the soil profile. The absence of rainfall meant that this nitrogen was easily accessible to the wheat crop. In addition, the favorable outlook in terms of yield and price resulted in many farmers deciding to make an investment in topdress nitrogen. In many cases a heavy nitrogen investment was well justified. In some instances, though, the topdress nitrogen, combined with high levels of residual soil nitrogen and excessive tillering, resulted in a lodged crop.

Other than winter grain mite activity in some of the drier areas of the state, the fall of 2011 was relatively insect free. A flush of bird cherry oat aphids seemed to appear overnight in mid-to-late March, and many producers chose to spray. This aphid flush resulted in widespread barley yellow dwarf virus (BYDV) symptoms at heading. Symptoms were mostly restricted to yellowing/purpling of flag leaves with no stunting or reduction in plant height. A legion of armyworms invaded just prior to harvest and some producers were compelled to spray an insecticide, but in many cases the rapid ripening of the wheat crop negated the need for pesticide application.

A significant shift in the predominant stripe rust race made it a game-changing foliar disease in 2011-2012. While stripe rust was present statewide, the epicenter for stripe rust was in central Oklahoma. Among our locations, Marshall Grain Only had the highest stripe rust incidence and severity. As evidenced by the results and confirmed by visual observation, the

resistance genes in Armour, Everest, and Pete offered little protection against the stripe rust onslaught. Even some of varieties fresh off the assembly line, such as Garrison, succumbed to stripe rust, although to a lesser degree. Fortunately, varieties such as Gallagher, Billings, Iba, WB-Cedar and CJ seemed to weather the stripe rust storm fairly well. Foliar diseases such as tan spot, septoria, powdery mildew, and leaf rust were also present in 2012 but never reached the severity of stripe rust. The combination of all of these foliar diseases led to a 10 bu/ac average yield advantage for fungicide-treated wheat at Lahoma and an 8 bu/ac advantage at Apache.

A wave of heat hit Oklahoma in mid April and soil moisture reserves were quickly depleted. This was especially true in areas south of Hwy 51 and west of Hwy 81 where fields quickly took on a blue cast. Temperatures moderated and moisture returned by early May, but the damage had already been done. White heads and aborted tillers quickly began to appear. In a few instances these were due to dryland root rot and/or take-all, but by and large the white heads were due to drought and heat stress combined.

Harvest was in full swing by mid May, approximately 65% complete by June 1, and essentially finished by the second week of June. Yields were better than expected in most locations and reports of field averages in the 60 – 80 bu/ac range in central Oklahoma were not uncommon. Lodging combined with delayed harvest resulted in low test weights in a few locations and some isolated pre-harvest sprouting. Low test weights were also common in many areas of western Oklahoma due to shrived grain caused by excessive heat and drought stress during grainfill.

Methods

Cultural Practices. Conventional plots were eight rows wide with six-inch row spacing. No-till plots were seven rows wide with 7.5-inch row spacing. Plots were 20 feet long and wheel tracks were included in the plot area for yield calculation. Conventional till plots received 50 lb/ac of 18-46-0 in-furrow at planting. No-till plots received 5 gal/ac of 10-34-0 at planting. The El Reno and Marshall dual-purpose (DP) trials were sown at 120 lb/ac. All other locations were sown at 60 lb/ac. Grazing pressure, nitrogen fertilization, and insect and weed control decisions were made on a location-by-location basis and reflect standard management practices for the area.

Additional information on the Web

A copy of this publication as well as additional variety information and more information on wheat management can be found at

www.wheat.okstate.edu

Marketing rights

Breeding programs responsible for varietal release are indicated as the "source" in results tables. In many cases, however, a separate entity has the marketing rights for these varieties. For this reason, a list of wheat seed companies and the varieties they market is provided below.

AgriPro
AP503CL2
CJ
Doans
Greer
Fannin
Jackpot
TAM 111
TAM 203
TAM 401

AGSECO
TAM 113

CO Wheat Res. Found.
Bill Brown
Hatcher

Husker Genetics
Mace

Kansas Wheat Alliance
Everest
Fuller
Jagger

Limagrain Cereal Seeds
T153
T158

OK Foundation Seed
2174
Deliver
Endurance

Oklahoma Genetics
Billings
Centerfield
Duster
Gallagher
Garrison
Iba
OK Bullet
Pete
Ruby Lee

WestBred
Armour
Santa Fe
WB-Cedar
Winterhawk

Watley Seed
TAM 112

More information available on the web:

www.wheat.okstate.edu

Twitter:
@OSU_small grains

Facebook:
facebook.com/OSUsmallgrains

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2012 Oklahoma Wheat Variety Trial Yield Summary

Variety	Afton	Alva	Apache	Apache Fungicide	Balko	Buffalo	Chattanooga	Cherokee	El Reno	Gage	Goodwell Irrigated	Goodwell Nonirrigated
	grain yield (bu/ac)											
2174	-	-	-	-	-	-	-	-	-	-	-	-
AP503CL2	-	48	-	-	-	19	-	-	-	23	-	-
Armour	44	48	50	60	24	25	38	45	40	16	40	14
Bill Brown	-	-	-	-	27	-	-	-	-	-	32	15
Billings	42	51	60	68	26	30	40	48	44	40	65	16
Centerfield	-	46	-	-	-	31	-	46	-	32	-	-
CJ	39	45	-	-	27	33	-	43	45	29	39	16
Deliver	-	-	48	53	-	-	38	47	37	-	-	-
Doans	43	46	47	51	28	31	34	41	50	31	41	16
Duster	27	51	36	51	28	29	40	52	34	28	48	15
Endurance	24	48	39	50	28	28	34	46	38	33	41	15
Everest	58	52	59	66	-	32	39	49	49	27	-	-
Fannin	-	-	36	41	-	-	37	-	30	-	-	-
Fuller	46	46	60	62	-	25	38	48	52	24	-	-
Gallagher	53	56	57	64	29	30	41	56	45	-	64	18
Garrison	43	49	44	57	23	24	37	47	35	14	41	12
Greer	24	41	46	54	25	24	38	50	36	26	42	13
Hatcher	-	-	-	-	29	-	-	-	-	-	43	13
Iba	32	51	42	50	30	32	39	55	35	-	56	15
Jackpot	25	46	51	60	26	27	42	45	46	29	48	14
Jagger	28	44	51	62	24	24	39	47	35	20	41	15
Mace	-	-	-	-	19	-	-	-	-	-	23	7
OK Bullet	30	44	48	55	-	25	33	48	35	29	-	-
Pete	-	-	47	68	-	-	37	47	38	-	-	-
Ruby Lee	39	57	57	64	31	36	49	48	54	27	54	16
Santa Fe	20	-	-	-	-	-	-	49	39	-	-	-
T153	-	-	-	-	30	-	-	-	-	-	61	16
T158	-	-	-	-	27	-	-	-	-	-	62	16
TAM 111	-	49	-	-	26	25	-	-	-	20	40	9
TAM 112	-	48	-	-	27	22	-	-	-	18	35	16
TAM 113	-	49	-	-	26	20	-	-	-	26	38	13
TAM 203	-	-	51	59	-	-	45	-	-	-	-	-
TAM 401	-	-	53	60	-	-	44	43	45	-	-	-
WB-Cedar	46	-	-	-	-	-	-	-	59	-	74	-
Winterhawk	-	53	-	-	28	31	-	57	-	26	58	16
OCW00S063S-1B	-	-	-	-	-	-	-	-	-	-	-	16
OK05312	-	-	-	-	27	-	-	-	-	-	32	11
OK08229	-	-	-	-	27	-	-	-	-	24	31	12
OK08328	-	53	48	52	26	23	31	-	43	22	46	14
OK08413	27	-	-	-	-	-	-	-	-	-	-	-
OK08707W	-	-	-	-	28	-	-	-	-	-	36	13
OK09125	-	-	-	-	-	-	-	-	-	-	-	11
OK09634	-	51	60	63	-	-	-	-	36	-	-	-
OK0986146W	-	-	-	-	-	-	-	-	-	-	27	-
OK09915C	-	50	-	-	-	22	-	-	44	30	-	-
Mean	37	49	49	58	27	27	39	48	42	26	47	14
LSD $_{(0.05)}$	14	5	8	10	3	3	8	7	6	5	8	3

2012 Oklahoma Wheat Variety Trial Yield Summary

Variety	Homestead	Hooker	Keyes	Kildare	Kingfisher	Lahoma	Lahoma Fungicide	Lamont	Marshall DP	Marshall GO	McLoud	Olustee	Thomas
	---------- grain yield (bu/ac)----------												
2174	-	-	-	-	-	-	-	-	-	-	57	-	-
AP503CL2	-	-	-	-	-	-	-	-	-	-	-	-	-
Armour	50	28	26	43	53	30	53	36	22	14	72	29	18
Bill Brown	-	33	24	-	-	-	-	-	-	-	-	-	-
Billings	59	33	19	54	64	52	63	36	37	53	72	26	37
Centerfield	-	-	-	-	52	-	-	-	-	-	-	-	-
CJ	43	36	20	42	63	50	55	29	46	51	64	-	-
Deliver	48	-	-	43	51	49	50	33	38	42	-	29	28
Doans	47	36	21	41	56	46	48	37	47	45	56	26	36
Duster	44	35	21	46	58	46	59	28	49	46	55	27	26
Endurance	47	37	21	46	55	51	56	31	44	47	62	29	16
Everest	58	-	-	62	55	47	58	35	39	40	73	29	30
Fannin	-	-	-	-	-	-	-	-	-	-	-	25	25
Fuller	59	-	-	48	62	51	55	34	41	44	62	30	21
Gallagher	60	35	20	53	66	57	63	33	37	56	75	29	23
Garrison	44	32	18	59	49	33	65	31	20	22	73	24	20
Greer	54	26	20	55	60	52	61	30	31	42	71	27	21
Hatcher	-	32	21	-	-	-	-	-	-	-	-	-	-
Iba	57	38	24	62	58	54	63	31	48	51	67	25	45
Jackpot	57	37	26	52	62	54	64	36	38	42	69	31	27
Jagger	50	35	23	41	61	50	58	33	28	39	66	33	13
Mace	-	31	15	-	-	-	-	-	-	-	-	-	-
OK Bullet	49	-	-	45	54	46	52	35	31	37	63	23	21
Pete	43	-	-	49	43	35	58	27	18	14	-	31	20
Ruby Lee	57	37	24	63	64	43	65	44	38	39	77	31	29
Santa Fe	54	-	-	50	55	49	55	40	39	41	52	-	-
T153	-	37	23	-	-	-	-	-	-	-	-	-	-
T158	-	29	24	-	-	-	-	-	-	-	-	-	-
TAM 111	-	33	17	-	-	-	-	-	-	-	-	-	-
TAM 112	-	33	29	-	-	-	-	-	-	-	-	-	-
TAM 113	-	30	24	-	-	-	-	-	-	-	-	-	-
TAM 203	-	-	-	-	-	-	-	-	-	-	-	31	26
TAM 401	45	-	-	43	59	49	51	29	37	47	-	26	34
WB-Cedar	60	-	-	57	63	60	71	47	45	65	71	-	-
Winterhawk	-	34	26	-	-	-	-	-	-	-	-	30	34
OCW00S063S-1B	-	-	22	-	-	-	-	-	-	-	-	-	-
OK05312	-	34	22	-	-	-	-	-	-	-	-	-	-
OK08229	-	34	23	-	-	-	-	-	-	-	-	-	-
OK08328	61	34	20	-	59	48	59	-	43	-	62	29	34
OK08413	-	-	27	57	-	-	-	-	-	-	60	-	-
OK08707W	-	-	-	-	-	-	-	-	-	-	-	-	-
OK09125	-	-	-	-	-	-	-	-	-	-	-	-	-
OK09634	-	-	-	-	72	52	60	-	-	47	-	-	-
OK0986146W	-	32	15	-	-	-	-	-	-	-	-	-	-
OK09915C	-	-	-	-	56	53	62	-	-	46	-	-	-
Mean	52	34	22	50	57	48	58	34	37	42	66	28	26
LSD $_{(0.05)}$	5	5	7	6	6	5	5	10	7	7	13	5	18

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

Afton Wheat Variety Trial

Cooperator: Greg Leonard | **Tillage: Conventional till**
Soil type: Parsons silt loam | **Management: Grain only**
Planting date: 10-03-11 | **Previous crop: Corn**
Harvest date: 06-07-12 | **Soil test: pH = 6.9, P = 156, K = 263**

		Grain Yield			Test Weight
Source	Variety	2011-12	2-Year	3-Year	2011-12
		----------bu/ac----------			--lb/bu--
KSU	Everest	58	50	53	56.9
OSU	Gallagher	53	50	-	52.9
KSU	Fuller	46	41	42	53.3
WestBred	WB-Cedar	46	39	-	55.3
WestBred	Armour	44	44	48	54.2
OSU	Garrison	43	-	-	51.6
AgriPro	Doans	43	35	-	54.8
OSU	Billings	42	40	45	56.2
OSU	Ruby Lee	39	-	-	54.1
AgriPro	CJ	39	-	-	53.5
OSU	Iba	32	37	-	50.6
OSU	OK Bullet	30	29	35	52.0
KSU	Jagger	28	30	36	53.7
OSU	Duster	27	32	37	53.4
AgriPro	Jackpot	25	28	38	48.3
OSU	Endurance	24	30	39	51.3
AgriPro	Greer	24	28	36	49.0
WestBred	Santa Fe	20	29	35	51.7
Experimentals					
	OK08413	27	-	-	49.7
	Mean	34	28	44	51.2
	LSD $_{(0.05)}$	14	8	6	3.8

Notes: Severe lodging occurred in all varieties shortly after head emergence. All plots were rated between 8 and 9 for lodging at time of harvest using a 0 - 10 scale with 0 representing no lodging and 10 representing complete lodging

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

Alva Wheat Variety Trial

Cooperator: Wes Mallory | **Tillage: Conventional till**
Soil type: Grant silt loam | **Management: Grain only**
Planting date: 10-17-11 | **Previous crop: Wheat**
Harvest date: 06-09-12 | **Soil test: pH = 5.7, P = 119, K = 591**

		Grain Yield			Test Weight
Source	Variety	2011-12	2-Year	3-Year	2011-12
		----------bu/ac----------			-----lb/bu-----
OSU	Ruby Lee	57	-	-	56.9
OSU	Gallagher	56	49	-	55.2
WestBred	Winterhawk	53	-	-	58.4
KSU	Everest	52	-	-	57.1
OSU	Iba	51	49	-	56.0
OSU	Billings	51	45	41	58.2
OSU	Duster	51	50	48	56.8
TAMU	TAM 111	49	45	45	56.3
OSU	Garrison	49	45	46	56.4
TAMU	TAM 113	49	-	-	56.6
AgriPro	AP503CL2	48	-	-	58.1
TAMU	TAM 112	48	52	47	56.2
OSU	Endurance	48	46	42	54.4
WestBred	Armour	48	45	-	55.3
OSU	Centerfield	46	41	38	56.3
AgriPro	Doans	46	44	39	57.7
AgriPro	Jackpot	46	41	37	54.6
KSU	Fuller	46	42	39	57.3
AgriPro	CJ	45	-	-	56.3
OSU	OK Bullet	44	42	39	59.8
KSU	Jagger	44	42	39	57.1
AgriPro	Greer	41	40	40	53.3
Experimentals					
	OK08328	53	-	-	54.2
	OK09634	51	-	-	56.2
	OK09915C	50	-	-	57.5
	Mean	49	45	41	56.5
	LSD $_{(0.05)}$	5	6	4	2.3

Apache Wheat Variety Trial

Cooperator: Bryan Vail | **Tillage: No-till**
Soil type: Hollister silt loam | **Management: Grain only**
Planting date: 10-18-11 | **Previous crop: Canola**
Harvest date: 05-29-12 | **Soil test: pH = 6.1, P = 54, K = 564**

		Grain Yield				Test Weight
Source	Variety	2011-12	Lodging*	2-Year	3-Year	2011-12
		--bu/ac--		---------bu/ac--------		---lb/bu---
OSU	Billings	60	1	40	-	57.1
KSU	Fuller	60	3	43	46	56.2
KSU	Everest	59	3	39	-	57.2
OSU	Gallagher	57	2	39	-	55.9
OSU	Ruby Lee	57	6	-	-	56.1
TAMU	TAM 401	53	8	35	44	53.7
KSU	Jagger	51	7	35	40	53.8
AgriPro	Jackpot	51	6	36	43	54.4
TAMU	TAM 203	51	5	40	44	54.7
WestBred	Armour	50	2	34	-	53.1
OSU	OK Bullet	48	3	34	38	55.6
OSU	Deliver	48	4	-	-	56.8
AgriPro	Doans	47	5	32	41	58.0
OSU	Pete	47	1	32	38	57.0
AgriPro	Greer	46	9	32	40	49.4
OSU	Garrison	44	5	32	-	53.7
OSU	Iba	42	7	33	-	54.7
OSU	Endurance	39	6	29	38	53.6
OSU	Duster	36	9	29	42	52.6
AgriPro	Fannin	36	8	25	35	55.6
Experimentals						
	OK09634	60	6	-	-	55.9
	OK08328	48	5	-	-	52.5
	Mean	50		34	41	54.9
	LSD $_{(0.05)}$	8		4	4	1.4

*Lodging notes taken at time of harvest using a 0 - 10 scale with 0 representing no lodging and 10 representing complete lodging

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

Apache Wheat Variety Trial - Fungicide Treated

Cooperator: Bryan Vail | **Tillage: No-till**
Soil type: Hollister silt loam | **Management: Grain only**
Planting date: 10-18-11 | **Previous crop: Canola**
Harvest date: 05-29-12 | **Soil test: pH = 6.1, P = 54, K = 564**
Fungicide = 4 oz/A Stratego YLD + 0.25% v/v Induce applied 03-30-12

		Grain Yield				Test Weight
Source	Variety	2011-12	Lodging*	2-Year	3-Year	2011-12
		--bu/ac--		---------bu/ac--------		---lb/bu---
OSU	Billings	68	2	45	-	57.7
OSU	Pete	68	0	43	46	59.4
KSU	Everest	66	2	42	-	58.3
OSU	Ruby Lee	64	7	-	-	57.4
OSU	Gallagher	64	3	44	-	56.3
KSU	Fuller	62	5	44	46	56.6
KSU	Jagger	62	8	42	45	55.1
AgriPro	Jackpot	60	8	40	47	54.7
WestBred	Armour	60	2	40	-	54.1
TAMU	TAM 401	60	8	39	45	54.2
TAMU	TAM 203	59	5	44	48	55.2
OSU	Garrison	57	6	38	-	55.1
OSU	OK Bullet	55	4	37	43	57.0
AgriPro	Greer	54	8	36	43	51.1
OSU	Deliver	53	5	-	-	57.5
OSU	Duster	51	7	37	47	54.4
AgriPro	Doans	51	6	34	41	58.4
OSU	Iba	50	7	38	-	55.8
OSU	Endurance	50	5	34	43	55.4
AgriPro	Fannin	41	7	27	36	56.7
Experimentals						
	OK09634	63	7	-	-	56.1
	OK08328	52	6	-	-	53.9
	Mean	58		39	44	55.9
	LSD $_{(0.05)}$	10		5	4	1.2

*Lodging notes taken at time of harvest using a 0 - 10 scale with 0 representing no lodging and 10 representing complete lodging

Apache Wheat Variety Trial - Fungicide vs. No Fungicide Comparison

Cooperator: Bryan Vail | **Management: No-till grain only** | **Planting date: 10-18-11**

Soil type: Hollister silt loam | **Soil test: pH = 6.1, P = 54, K = 564** | **Harvest date: 05-29-12**

Previous crop: Canola | **Fungicide = 4 oz/A Stratego YLD + 0.25% v/v Induce applied 03-30-12**

		Grain Yield									Test Weight		
		2011-12			2-Year			3-Year			2011-12		
Source	Variety	No Fungicide	Fungicide	*Diff.*	No Fungicide	Fungicide	*Diff.*	No Fungicide	Fungicide	*Diff.*	No Fungicide	Fungicide	*Diff.*
		bu/ac									lb/bu		
OSU	Billings	60	68	8	40	45	5	-	-	-	57.1	57.7	0.6
KSU	Fuller	60	62	3	43	44	2	46	46	0	56.2	56.6	0.3
KSU	Everest	59	66	6	39	42	3	-	-	-	57.2	58.3	1.0
OSU	Gallagher	57	64	6	39	44	5	-	-	-	55.9	56.3	0.4
OSU	Ruby Lee	57	64	8	-	-	-	-	-	-	56.1	57.4	1.3
TAMU	TAM 401	53	60	7	35	39	4	44	45	0	53.7	54.2	0.5
AgriPro	Jackpot	51	60	9	36	40	4	43	47	4	54.4	54.7	0.3
KSU	Jagger	51	62	11	35	42	6	40	45	5	53.8	55.1	1.3
TAMU	TAM 203	51	59	8	40	44	5	44	48	4	54.7	55.2	0.5
WestBred	Armour	50	60	10	34	40	5	-	-	-	53.1	54.1	1.1
OSU	OK Bullet	48	55	6	34	37	3	38	43	5	55.6	57.0	1.4
OSU	Deliver	48	53	5	-	-	-	-	-	-	56.8	57.5	0.7
AgriPro	Doans	47	51	3	32	34	2	41	41	0	58.0	58.4	0.4
OSU	Pete	47	68	21	32	43	12	38	46	8	57.0	59.4	2.4
AgriPro	Greer	46	54	8	32	36	4	40	43	3	49.4	51.1	1.7
OSU	Garrison	44	57	13	32	38	6	-	-	-	53.7	55.1	1.4
OSU	Iba	42	50	8	33	38	5	-	-	-	54.7	55.8	1.1
OSU	Endurance	39	50	11	29	34	6	38	43	4	53.6	55.4	1.9
OSU	Duster	36	51	15	29	37	7	42	47	5	52.6	54.4	1.9
AgriPro	Fannin	36	41	5	25	27	2	35	36	1	55.6	56.7	1.1
Experimentals													
	OK09634	60	63	3	-	-	-	-	-	-	55.9	56.1	0.3
	OK08328	48	52	4	-	-	-	-	-	-	52.5	53.9	1.4
	Mean	50	58	8	34	39	5	41	44	3	54.9	55.9	1.0
	LSD $_{(0.05)}$	9			4			4			1.3		

Notes: Severe lodging occurred shortly after heading. Lodging scores are reported on the 'Apache' and 'Apache Fungicide' data sheets

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

Balko Wheat Variety Trial

Cooperator: Craig Frantz | **Tillage: No-till**
Soil type: Ulysses-Richfield complex | **Management: Grain only**
Planting date: 10-05-11 | **Previous crop: Sorghum/Fallow**
Harvest date: 06-11-12 | **Soil test: pH = 6.7, P = 41, K = 1080**

		Grain Yield			Test Weight
Source	Variety	2011-12	2-Year	3-Year	2011-12
		----------bu/ac----------			-----lb/bu-----
OSU	Ruby Lee	31	-	-	57.1
OSU	Iba	30	-	-	56.3
LCS	T153	30	-	-	56.2
OSU	Gallagher	29	-	-	54.3
CSU	Hatcher	29	36	-	56.6
AgriPro	Doans	28	33	45	57.2
OSU	Duster	28	37	51	56.1
WestBred	Winterhawk	28	37	51	58.1
OSU	Endurance	28	36	46	55.4
LCS	T158	27	34	-	55.0
TAMU	TAM 112	27	35	48	56.2
CSU	Bill Brown	27	34	-	55.5
AgriPro	CJ	27	-	-	56.9
OSU	Billings	26	32	46	53.9
AgriPro	Jackpot	26	34	47	55.7
TAMU	TAM 113	26	-	-	56.2
TAMU	TAM 111	26	34	51	56.6
AgriPro	Greer	25	34	-	54.2
WestBred	Armour	24	35	-	54.0
KSU	Jagger	24	31	43	55.9
OSU	Garrison	23	31	45	56.1
UNL	Mace	19	28	40	55.0
Experimentals					
	OK08707W	28	-	-	55.0
	OK08229	27	-	-	54.5
	OK05312	27	36	51	56.5
	OK08328	26	-	-	52.2
	Mean	27	34	47	55.6
	LSD $_{(0.05)}$	3	3	2	1.8

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Buffalo Wheat Variety Trial

Cooperator: NRCS | **Tillage: Conventional till**
Soil type: St. Paul silt loam | **Management: Grain only**
Planting date: Dusted in 10-28-11 Rain occurred 11-07-11 | **Previous crop: Wheat**
Harvest date: 06-09-12 | **Soil test: pH = 7.2, P = 75, K = 646**

		Grain Yield				Test Weight
Source	Variety	2011-12	Lodging*	2-Year	3-Year	2011-12
		-bu/ac-		----------bu/ac--------		-----lb/bu-----
OSU	Ruby Lee	36	3	-	-	51.3
AgriPro	CJ	33	5	-	-	51.7
KSU	Everest	32	4	-	-	52.1
OSU	Iba	32	3	-	-	50.0
WestBred	Winterhawk	31	3	27	30	51.6
OSU	Centerfield	31	2	21	23	48.5
AgriPro	Doans	31	6	24	25	52.5
OSU	Billings	30	5	22	22	50.4
OSU	Gallagher	30	2	-	-	48.7
OSU	Duster	29	3	23	26	49.2
OSU	Endurance	28	2	21	24	46.9
AgriPro	Jackpot	27	2	21	23	47.8
WestBred	Armour	25	1	20	-	49.0
KSU	Fuller	25	4	22	23	45.2
TAMU	TAM 111	25	3	17	19	47.3
OSU	OK Bullet	25	2	20	22	51.3
AgriPro	Greer	24	1	21	21	44.7
OSU	Garrison	24	2	20	-	50.6
KSU	Jagger	24	3	20	21	48.0
TAMU	TAM 112	22	4	21	25	48.8
TAMU	TAM 113	20	3	-	-	46.9
AgriPro	AP503CL2	19	2	-	-	47.9
Experimentals						
	OK08328	23	1	-	-	43.2
	OK09915C	22	2	-	-	45.9
	Mean	27		21	23	48.7
	LSD $_{(0.05)}$	3		3	4	2

*Lodging notes taken at time of harvest using a 0 - 10 scale with 0 representing no lodging and 10 representing complete lodging

Notes: Low test weights were the result of lodging, extreme late-season drought, and heat.

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Chattanooga Wheat Variety Trial

Cooperator: Lynn Geis | **Tillage: No-till**
Soil type: Indiahoma silty clay loam | **Management: Grain only**
Planting date: 10-24-11 | **Previous crop: Cotton**
Harvest date: 05-16-12 | **Soil test: pH = 5.7, P = 26, K = 544**

Source	Variety	Grain Yield 2011-12	Test Weight 2011-12
		--bu/ac--	--lb/bu--
OSU	Ruby Lee	49	59.1
TAMU	TAM 203	45	54.8
TAMU	TAM 401	44	54.1
AgriPro	Jackpot	42	56.0
OSU	Gallagher	41	57.1
OSU	Billings	40	56.4
OSU	Duster	40	56.4
KSU	Jagger	39	55.0
KSU	Everest	39	56.8
OSU	Iba	39	56.4
WestBred	Armour	38	54.5
OSU	Deliver	38	57.6
AgriPro	Greer	38	51.0
KSU	Fuller	38	54.9
AgriPro	Fannin	37	55.5
OSU	Pete	37	56.7
OSU	Garrison	37	56.8
OSU	Endurance	34	53.4
AgriPro	Doans	34	56.3
OSU	OK Bullet	33	56.9
Experimentals			
	OK08328	31	52.2
	Mean	39	55.5
	LSD $_{(0.05)}$	8	1.5

Notes: Season-long moderate to severe drought conditions with abnormally warm winter temperatures

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

Cherokee Wheat Variety Trial

Cooperator: Kenneth Failes
Soil type: Dale silt loam
Planting date: 10-13-11
Harvest date: 06-05-12

Tillage: Conventional till
Management: Dual purpose
Previous crop: Wheat
Soil test: pH = 7.3, P = 52, K = 737

		Grain Yield				Test Weight
Source	Variety	2011-12	Lodging*	2-Year	3-Year	2011-12
		-bu/ac-		----------bu/ac--------		-----lb/bu-----
WestBred	Winterhawk	57	2	-	-	58.1
OSU	Gallagher	56	2	38	-	55.2
OSU	Iba	55	5	40	-	56.4
OSU	Duster	52	4	40	37	55.3
AgriPro	Greer	50	2	39	36	53.3
WestBred	Santa Fe	49	4	36	32	54.5
KSU	Everest	49	5	37	35	54.9
OSU	Billings	48	3	33	30	54.3
OSU	Ruby Lee	48	5	-	-	54.9
KSU	Fuller	48	4	37	32	52.7
OSU	OK Bullet	48	2	34	30	58.5
OSU	Pete	47	3	-	-	55.2
OSU	Garrison	47	2	33	32	56.3
OSU	Deliver	47	3	31	28	57.9
KSU	Jagger	47	4	37	33	53.2
OSU	Endurance	46	3	35	33	53.9
OSU	Centerfield	46	2	31	28	55.7
WestBred	Armour	45	5	31	-	52.7
AgriPro	Jackpot	45	5	33	29	54.9
AgriPro	CJ	43	5	-	-	54.4
TAMU	TAM 401	43	3	34	30	51.9
AgriPro	Doans	41	6	31	27	56.4
	Mean	48		35	31	55.0
	LSD $_{(0.05)}$	7		5	4	3

*Lodging notes taken at time of harvest using a 0 - 10 scale with 0 representing no lodging and 10 representing complete lodging

Notes: Low test weights were the result of lodging, late-season drought, and heat.

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El Reno Wheat Variety Trial

Cooperator: Bornemann Farms | **Tillage: Conventional till**
Soil type: Pond Creek silt loam | **Management: Dual purpose**
Planting date: 09-27-11 | **Previous crop: Wheat**
Harvest date: 05-29-12 | **Soil test: pH = 6.8, P = 71, K = 337**

		Grain Yield				Test Weight
Source	Variety	2011-12	Lodging*	2-Year	3-Year	2011-12
		--bu/ac--		---------bu/ac--------		-----lb/bu-----
WestBred	WB-Cedar	59	1	45	-	55.5
OSU	Ruby Lee	54	2	45	49	55.2
KSU	Fuller	52	1	43	47	55.9
AgriPro	Doans	50	1	41	45	57.2
KSU	Everest	49	2	44	-	57.1
AgriPro	Jackpot	46	2	39	48	55.1
OSU	Gallagher	45	0	-	-	56.0
AgriPro	CJ	45	1	-	-	55.3
TAMU	TAM 401	45	2	37	45	54.3
OSU	Billings	44	2	36	44	56.3
WestBred	Armour	40	1	32	-	53.2
WestBred	Santa Fe	39	1	36	41	54.3
OSU	Endurance	38	3	38	46	54.5
OSU	Pete	38	0	33	42	58.8
OSU	Deliver	37	5	33	39	58.5
WestBred	Greer	36	2	34	39	52.4
OSU	Garrison	35	2	33	39	53.7
KSU	Jagger	35	1	34	39	53.8
OSU	Iba	35	1	36	-	56.8
OSU	OK Bullet	35	0	35	40	58.3
OSU	Duster	34	4	37	46	53.6
AgriPro	Fannin	30	4	27	37	55.6
Experimentals						
	OK09915C	44	0	-	-	58.4
	OK08328	43	1	-	-	55.8
	OK09634	36	1	-	-	54.9
	Mean	42		37	43	55.6
	LSD $_{(0.05)}$	6		5	5	2.6

*Lodging notes taken at time of harvest using a 0 - 10 scale with 0 representing no lodging and 10 representing complete lodging

Gage Wheat Variety Trial

Cooperator: Curtis Torrance | **Tillage: No till**
Soil type: St. Paul silt loam | **Management: Dual purpose**
Planting date: 10-26-11 | **Previous crop: Wheat**
Harvest date: 06-01-12 | **Soil test: pH = 7.5, P = 75, K = 686**

		Grain Yield		
Source	Variety	2011-12	2-Year	3-Year
		----------bu/ac----------		
OSU	Billings	40	23	22
OSU	Endurance	33	21	20
OSU	Centerfield	32	21	22
AgriPro	Doans	31	21	21
AgriPro	Jackpot	29	20	19
AgriPro	CJ	29	-	-
OSU	OK Bullet	29	19	21
OSU	Duster	28	18	20
KSU	Everest	27	-	-
OSU	Ruby Lee	27	-	-
WestBred	Winterhawk	26	18	20
AgriPro	Greer	26	18	19
TAMU	TAM 113	26	-	-
KSU	Fuller	24	17	18
AgriPro	AP503CL2	23	-	-
TAMU	TAM 111	20	15	17
KSU	Jagger	20	15	17
TAMU	TAM 112	18	14	18
WestBred	Armour	16	12	-
OSU	Garrison	14	-	-
Experimentals				
	OK09915C	30	-	-
	OK08229	24	-	-
	OK08328	22	-	-
	Mean	26	18	20
	LSD $_{(0.05)}$	5	3	2

Notes: Grain samples were too small to measure test weight. Grain yield affected by season-long drought. Plots were grazed, but stocking density was very low due to insufficient forage growth

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

Goodwell Irrigated Wheat Variety Trial

Cooperator: OK Panhandle Research & Extension Center **Tillage: Conventional till**
Soil type: Richfield clay loam **Management: Grain only**
Planting date: 10-03-11 **Total irrigation: 14.5 in** **Previous crop: Wheat/Fallow**
Harvest date: 06-15-12 **Total rainfall: 9.1 in** **Soil test: pH = 7.6, P = 49, K = 1200**

		Grain Yield					Test Weight
Source	Variety	2011-12	Freeze Inj.*	Lodging**	2-Year	3-Year	2011-12
		---bu/ac---			----------bu/ac----------		-----lb/bu-----
WestBred	WB-Cedar	74	L	0	-	-	57.8
OSU	Billings	65	H	7	50	56	55.7
OSU	Gallagher	64	L	2	51	-	54.1
LCS	T158	62	L	2	51	-	53.5
LCS	T153	61	L	0	-	-	55.4
WestBred	Winterhawk	58	H	2	48	54	51.2
OSU	Iba	56	L	3	-	-	53.0
OSU	Ruby Lee	54	L	7	-	-	53.7
OSU	Duster	48	L	6	44	52	51.4
AgriPro	Jackpot	48	L	4	38	46	53.2
CSU	Hatcher	43	H	3	42	-	52.3
AgriPro	Greer	42	L	3	36	46	49.6
OSU	Endurance	41	M	3	39	45	47.5
KSU	Jagger	41	L	7	37	43	49.4
OSU	Garrison	41	L	2	-	-	48.1
AgriPro	Doans	41	L	5	36	43	54.2
WestBred	Armour	40	L	3	41	-	51.0
TAMU	TAM 111	40	M	3	40	51	50.2
AgriPro	CJ	39	L	1	-	-	53.3
TAMU	TAM 113	38	H	9	-	-	49.5
TAMU	TAM 112	35	H	8	39	48	52.1
CSU	Bill Brown	32	M	1	32	-	46.8
UNL	Mace	23	L	1	29	40	43.3
Experimentals							
	OK08328	46	M	4	-	-	45.5
	OK08707W	36	M	5	-	-	46.8
	OK05312	32	H	6	-	-	43.2
	OK08229	31	L	3	-	-	41.2
	OK0986146W	27	L	0	-	-	43.0
	Mean	45			41	48	50.2
	LSD $_{(0.05)}$	8			6	5	1.8

* Temperatures reached 21F on March 20, 2012. Freeze injury ratings of low (L), medium (M), or high (H) were recorded March 31, 2012. Injury symptoms were mostly restricted to node damage and lodging

**Lodging notes taken at time of harvest using a 0 - 10 scale with 0 representing no lodging and 10 representing complete lodging

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

Goodwell Nonirrigated Wheat Variety Trial

Cooperator: OK Panhandle Research & Extension Center **Tillage: No-till**
Soil type: Richfield clay loam **Management: Grain only**
Planting date: 09-23-11 **Previous crop: Wheat/Fallow**
Harvest date: 06-01-12 **Soil test: pH = 7.9, P = 44, K = 936**

Source	Variety	Grain Yield 2011-12	Test Weight 2011-12
		---bu/ac---	-----lb/bu-----
OSU	Gallagher	18	58.7
OSU	Ruby Lee	16	57.8
TAMU	TAM 112	16	57.9
LCS	T153	16	57.4
WestBred	Winterhawk	16	59.1
AgriPro	Doans	16	58.4
OSU	Billings	16	57.0
LCS	T158	16	56.4
AgriPro	CJ	16	57.1
CSU	Bill Brown	15	59.0
OSU	Iba	15	58.0
KSU	Jagger	15	56.0
OSU	Endurance	15	58.1
OSU	Duster	15	59.0
AgriPro	Jackpot	14	56.5
WestBred	Armour	14	56.5
CSU	Hatcher	13	58.9
AgriPro	Greer	13	55.3
TAMU	TAM 113	13	57.9
OSU	Garrison	12	55.8
TAMU	TAM 111	9	56.3
UNL	Mace	7	55.9
Experimentals			
	OCW00S063S-1B	16	58.1
	OK08328	14	58.0
	OK08707W	13	57.8
	OK08229	12	57.4
	OK09125	11	58.8
	OK05312	11	56.1
	Mean	14	57.5
	LSD $_{(0.05)}$	3	NS

Notes: Grain yield affected by season-long drought.

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

Homestead Wheat Variety Trial

Cooperator: Brook Strader
Soil type: Canadian fine sandy loam
Planting date: 10-13-11
Harvest date: 05-24-12

Tillage: Conventional till
Management: Grain only
Previous crop: Wheat
Soil test: pH = 6.5, P = 70, K = 400

		Grain Yield					Test Weight
Source	Variety	2011-12	Lodging*	Shattering*	2-Year	3-Year	2011-12
		--bu/ac--			---------bu/ac--------		-----lb/bu-----
OSU	Gallagher	60	0	1	47	-	57.4
WestBred	WB-Cedar	60	0	1	-	-	58.7
KSU	Fuller	59	0	1	42	47	57.7
OSU	Billings	59	1	1	49	47	58.3
KSU	Everest	58	0	2	49	-	59.3
OSU	Iba	57	1	1	-	-	58.1
OSU	Ruby Lee	57	1	1	-	-	59.1
AgriPro	Jackpot	57	0	2	43	47	57.2
WestBred	Santa Fe	54	0	1	50	44	56.8
AgriPro	Greer	54	1	2	46	46	53.6
KSU	Jagger	50	2	1	49	40	54.1
WestBred	Armour	50	0	1	45	-	53.9
OSU	OK Bullet	49	0	1	41	40	58.0
OSU	Deliver	48	0	1	44	41	58.5
OSU	Endurance	47	0	2	51	44	55.6
AgriPro	Doans	47	0	2	42	42	61.2
TAMU	TAM 401	45	0	2	-	41	53.7
OSU	Garrison	44	1	1	49	-	54.2
OSU	Duster	44	7	1	44	44	54.5
AgriPro	CJ	43	1	3	40	-	56.4
OSU	Pete	43	0	1	-	-	56.5
Experimental							
	OK08328	61	0	1	-	-	57.0
	Mean	52			46	44	56.8
	LSD $_{(0.05)}$	5			4	3	1

*Lodging and shattering notes taken at time of harvest using a 0 - 10 scale with 0 representing no lodging or shattering and 10 representing complete lodging or shattering

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

Hooker Wheat Variety Trial

Cooperator: Dan and Earnest Herald
Soil type: Dalhart fine sandy loam
Planting date: 09-30-11
Harvest date: 06-05-12

Tillage: No-till
Management: Grain only
Previous crop: Failed sorghum

Source	Variety	Grain Yield			Test Weight
		2011-12	2-Year	3-Year	2011-12
		----------bu/ac----------			--lb/bu--
OSU	Iba	38	-	-	52.3
AgriPro	Jackpot	37	29	49	52.3
OSU	Ruby Lee	37	-	-	51.7
OSU	Endurance	37	29	42	52.3
LCS	T153	37	-	-	54.6
AgriPro	Doans	36	29	43	54.9
AgriPro	CJ	36	-	-	53.4
KSU	Jagger	35	27	45	52.7
OSU	Gallagher	35	-	-	51.8
OSU	Duster	35	28	43	50.4
WestBred	Winterhawk	34	-	-	55.6
TAMU	TAM 112	33	29	46	53.1
CSU	Bill Brown	33	29	-	48.4
TAMU	TAM 111	33	27	44	50.5
OSU	Billings	33	26	46	47.3
OSU	Garrison	32	-	-	53.6
CSU	Hatcher	32	28	-	50.2
UNL	Mace	31	27	41	51.1
TAMU	TAM 113	30	-	-	50.3
LCS	T158	29	26	-	48.2
AgriPro	Armour	28	25	-	51.1
AgriPro	Greer	26	-	-	48.3
Experimentals					
	OK05312	34	30	39	53.8
	OK08328	34	-	-	47.2
	OK08229	34	-	-	48.7
	OK0986146W	32	-	-	50.0
	Mean	34	28	44	51.3
	LSD $_{(0.05)}$	5	3	2	2.5

Notes: Grain yield affected by season-long drought. Low test weights are the result of extreme late-season drought and heat.

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

Keyes Wheat Variety Trial

Cooperator: J. B. Stewart | **Tillage: No-till**
Soil type: Richfield clay loam | **Management: Grain only**
Planting date: 09-30-11 | **Previous crop: Wheat/Fallow**
Harvest date: 06-12-12 | **Soil test: pH = 7.7, P = 14, K = 918**

		Grain Yield			Test Weight
Source	Variety	2011-12	2-Year	3-Year	2011-12
		----------bu/ac----------			-----lb/bu-----
TAMU	TAM 112	29	31	34	58.7
AgriPro	Jackpot	26	24	31	58.1
WestBred	Winterhawk	26	-	-	61.5
WestBred	Armour	26	23	-	58.0
OSU	Ruby Lee	24	-	-	58.5
LCS	T158	24	24	-	56.8
TAMU	TAM 113	24	-	-	58.7
OSU	Iba	24	-	-	58.5
CSU	Bill Brown	24	22	-	59.5
LCS	T153	23	-	-	57.1
KSU	Jagger	23	22	29	57.5
CSU	Hatcher	21	20	-	58.6
OSU	Endurance	21	20	26	59.3
AgriPro	Doans	21	24	29	57.4
OSU	Duster	21	22	28	58.6
AgriPro	Greer	20	-	-	57.1
AgriPro	CJ	20	-	-	58.2
OSU	Gallagher	20	-	-	58.4
OSU	Billings	19	19	25	54.0
OSU	Garrison	18	-	-	57.5
TAMU	TAM 111	17	20	26	56.1
UNL	Mace	15	16	23	57.2
Experimentals					
	OK09125	27	-	-	57.6
	OK08229	23	-	-	55.4
	OK05312	22	23	30	59.4
	OCW00S063S-1B	22	-	-	59.9
	OK08328	20	-	-	58.5
	OK0986146W	15	-	-	55.6
	Mean	22	22	28	57.9
	LSD $_{(0.05)}$	7	4	3	2.3

Notes: Grain yields were reduced approximately 10% by spring freeze injury just prior to flowering.

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

Kildare Wheat Variety Trial

Cooperator: Don Schieber | **Tillage: No-till**
Soil type: Tabler silt loam | **Management: Grain only**
Planting date: 10-25-11 | **Previous crop: Wheat**
Harvest date: 06-08-12 | **Soil test: pH = 5.5, P = 125, K = 419**

		Grain Yield				Test Weight
Source	Variety	2011-12	Lodging*	2-Year	3-Year**	2011-12
		-bu/ac-		----------bu/ac--------		-----lb/bu-----
OSU	Ruby Lee	63	1	53	49	56.5
OSU	Iba	62	1	58	-	55.7
KSU	Everest	62	1	51	-	56.2
OSU	Garrison	59	0	53	-	53.9
WestBred	WB-Cedar	57	0	44	-	54.7
AgriPro	Greer	55	0	53	-	52.3
OSU	Billings	54	1	44	39	55.2
OSU	Gallagher	53	1	-	-	55.3
AgriPro	Jackpot	52	0	44	40	55.7
WestBred	Santa Fe	50	0	47	44	52.5
OSU	Pete	49	0	-	-	52.2
KSU	Fuller	48	1	44	40	51.8
OSU	Duster	46	3	48	47	51.3
OSU	Endurance	46	1	44	39	52.2
OSU	OK Bullet	45	1	43	38	55.5
OSU	Deliver	43	1	-	-	53.1
TAMU	TAM 401	43	1	-	-	50.9
WestBred	Armour	43	1	42	38	50.9
AgriPro	CJ	42	3	-	-	53.4
KSU	Jagger	41	1	37	35	51.7
AgriPro	Doans	41	3	36	31	56.3
Experimentals						
	OK08413	57	0	-	-	50.0
	Mean	51		46	40	53.5
	LSD $_{(0.05)}$	6		6	4	2

*Lodging notes taken at time of harvest using a 0 - 10 scale with 0 representing no lodging and 10 representing complete lodging

**Three-year average includes 2009 data

Notes: Low test weights were the result lodging, late-season drought, and heat.

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

Kingfisher Wheat Variety Trial

Cooperator: Rodney Mueggenborg | **Tillage: Conventional till**
Soil type: Tillman silt loam | **Management: Grain only**
Planting date: 10-19-11 | **Previous crop: Wheat**
Harvest date: 05-23-12 | **Soil test: pH = 6.4, P = 44, K = 448**

		Grain Yield			Test Weight
Source	Variety	2011-12	2-Year	3-Year	2011-12
		----------bu/ac----------			-----lb/bu-----
OSU	Gallagher	66	-	-	61.4
OSU	Billings	64	43	46	61.4
OSU	Ruby Lee	64	-	-	61.4
AgriPro	CJ	63	-	-	60.0
WestBred	WB-Cedar	63	38	-	60.8
KSU	Fuller	62	42	46	60.5
AgriPro	Jackpot	62	39	45	60.3
KSU	Jagger	61	42	43	59.4
AgriPro	Greer	60	38	42	57.6
TAMU	TAM 401	59	37	41	58.1
OSU	Iba	58	42	-	60.5
OSU	Duster	58	43	49	59.9
AgriPro	Doans	56	38	44	62.2
OSU	Endurance	55	36	42	60.3
WestBred	Santa Fe	55	36	41	59.4
KSU	Everest	55	35	-	61.7
OSU	OK Bullet	54	36	41	60.6
WestBred	Armour	53	36	-	57.0
OSU	Centerfield	52	36	40	60.3
OSU	Deliver	51	34	39	60.4
OSU	Garrison	49	35	41	59.4
OSU	Pete	43	31	39	58.8
Experimentals					
	OK09634	72	-	-	61.2
	OK08328	59	-	-	59.3
	OK09915C	56	-	-	61.7
	Mean	58	38	43	60.2
	LSD $_{(0.05)}$	6	4	3	1

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Lahoma Wheat Variety Trial

Cooperator: North Central Research Station **Tillage: Conventional till**
Soil type: Pond Creek silt loam **Management: Grain only**
Planting date: 10-20-11 **Previous crop: Wheat**
Harvest date: 05-25-12 **Soil test: pH = 5.3, P = 62, K = 507**

		Grain Yield			Test Weight
Source	Variety	2011-12	2-Year	3-Year	2011-12
		----------bu/ac----------			-----lb/bu-----
WestBred	WB-Cedar	60	52	-	58.0
OSU	Gallagher	57	54	-	59.4
AgriPro	Jackpot	54	47	41	59.4
OSU	Iba	54	53	-	60.3
AgriPro	Greer	52	47	40	57.7
OSU	Billings	52	49	43	59.3
KSU	Fuller	51	49	40	58.4
OSU	Endurance	51	48	42	57.4
KSU	Jagger	50	49	39	57.1
AgriPro	CJ	50	-	-	57.9
OSU	Deliver	49	41	34	60.0
WestBred	Santa Fe	49	48	40	57.7
TAMU	TAM 401	49	45	38	55.9
KSU	Everest	47	47	44	58.6
AgriPro	Doans	46	44	36	61.7
OSU	Duster	46	50	43	56.9
OSU	OK Bullet	46	45	37	59.9
OSU	Ruby Lee	43	-	-	56.4
OSU	Pete	35	38	31	57.1
OSU	Garrison	33	38	36	54.4
WestBred	Armour	30	38	34	50.4
Experimentals					
	OK09915C	53	-	-	61.6
	OK09634	52	-	-	58.7
	OK08328	48	-	-	57.6
	Mean	48	46	39	58.0
	LSD $_{(0.05)}$	5	5	3	1.4

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Lahoma Wheat Variety Trial - Fungicide Treated

Cooperator: North Central Research Station **Tillage: Conventional till**
Soil type: Pond Creek silt loam **Management: Grain only**
Planting date: 10-20-11 **Previous crop: Wheat**
Harvest date: 05-25-12 **Soil test: pH = 5.3, P = 62, K = 507**
Fungicide = 10.5 oz/A Quilt Xcel + 1% v/v COC applied 04-04-12

		Grain Yield			Test Weight
Source	Variety	2011-12	2-Year	3-Year	2011-12
		----------bu/ac----------			-----lb/bu-----
WestBred	WB-Cedar	71	60	-	60.2
OSU	Garrison	65	56	50	60.3
OSU	Ruby Lee	65	-	-	61.7
AgriPro	Jackpot	64	51	44	60.7
OSU	Gallagher	63	58	-	60.8
OSU	Iba	63	58	-	61.8
OSU	Billings	63	55	48	61.1
AgriPro	Greer	61	51	46	59.4
OSU	Duster	59	55	50	60.3
KSU	Everest	58	54	49	60.7
OSU	Pete	58	49	39	60.4
KSU	Jagger	58	52	44	58.8
OSU	Endurance	56	52	48	59.0
WestBred	Santa Fe	55	50	43	59.2
KSU	Fuller	55	51	42	59.7
AgriPro	CJ	55	-	-	59.2
WestBred	Armour	53	52	45	57.6
OSU	OK Bullet	52	49	42	61.2
TAMU	TAM 401	51	47	38	56.3
OSU	Deliver	50	40	34	60.3
AgriPro	Doans	48	45	37	61.9
Experimentals					
	OK09915C	62	-	-	61.4
	OK09634	60	-	-	60.4
	OK08328	59	-	-	59.6
	Mean	58	52	44	60.1
	LSD $_{(0.05)}$	5	5	3	1.0

Lahoma Wheat Variety Trial - Fungicide vs No Fungicide Comparison

Cooperator: North Central Research Station | **Management: Grain only** | **Planting date: 10-20-11**

Soil type: Pond Creek silt loam | **Soil test: pH = 5.3, P = 62, K = 507** | **Harvest date: 05-25-12**

Previous crop: Wheat | **Fungicide = 10.5 oz/A Quilt Xcel + 1% v/v COC applied 04-04-12**

		Grain Yield									Test Weight		
		2011-12			2-Year			3-Year			2011-12		
Source	Variety	No Fungicide	Fungicide	*Diff.*	No Fungicide	Fungicide	*Diff.*	No Fungicide	Fungicide	*Diff.*	No Fungicide	Fungicide	*Diff.*
		bu/ac									lb/bu		
WestBred	WB-Cedar	60	71	11	52	60	8	-	-	-	58.0	60.2	2.1
OSU	Gallagher	57	63	6	54	58	4	-	-	-	59.4	60.8	1.3
AgriPro	Jackpot	54	64	9	47	51	3	41	44	3	59.4	60.7	1.3
OSU	Iba	54	63	9	53	58	5	-	-	-	60.3	61.8	1.5
AgriPro	Greer	52	61	9	47	51	4	40	46	5	57.7	59.4	1.7
OSU	Billings	52	63	11	49	55	6	43	48	5	59.3	61.1	1.8
KSU	Fuller	51	55	4	49	51	2	40	42	2	58.4	59.7	1.4
OSU	Endurance	51	56	5	48	52	4	42	48	6	57.4	59.0	1.5
KSU	Jagger	50	58	8	49	52	3	39	44	4	57.1	58.8	1.7
AgriPro	CJ	50	55	5	-	-	-	-	-	-	57.9	59.2	1.3
OSU	Deliver	49	50	1	41	40	-1	34	34	0	60.0	60.3	0.2
WestBred	Santa Fe	49	55	6	48	50	2	40	43	3	57.7	59.2	1.6
TAMU	TAM 401	49	51	2	45	47	2	38	38	0	55.9	56.3	0.4
KSU	Everest	47	58	11	47	54	7	44	49	5	58.6	60.7	2.1
AgriPro	Doans	46	48	2	44	45	1	36	37	1	61.7	61.9	0.2
OSU	Duster	46	59	13	50	55	6	43	50	7	56.9	60.3	3.4
OSU	OK Bullet	46	52	6	45	49	4	37	42	5	59.9	61.2	1.3
OSU	Ruby Lee	43	65	22	-	-	-	-	-	-	56.4	61.7	5.3
OSU	Pete	35	58	23	38	49	11	31	39	8	57.1	60.4	3.3
OSU	Garrison	33	65	33	38	56	18	36	50	14	54.4	60.3	5.9
WestBred	Armour	30	53	23	38	52	14	34	45	11	50.4	57.6	7.2
Experimentals													
	OK09915C	53	62	9	-	-	-	-	-	-	61.6	61.4	-0.2
	OK09634	52	60	8	-	-	-	-	-	-	58.7	60.4	1.7
	OK08328	48	59	12	-	-	-	-	-	-	57.6	59.6	2.1
	Mean	48	58	10	46	52	5	39	44	5	58.0	60.1	2.1
	LSD $_{(0.05)}$	5			5			3			1.2		

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Lamont Wheat Variety Trial

Cooperator: Kirby Farms | **Tillage: Conventional till**
Soil type: Pond Creek silt loam | **Management: Grain only**
Planting date: 09-28-11 | **Previous crop: Wheat**
Harvest date: 06-12-12 | **Soil test: pH = 5.6, P = 44, K = 483**

		Grain Yield			Test Weight
Source	Variety	2011-12	2-Year	3-Year	2011-12
		----------bu/ac----------			-----lb/bu-----
WestBred	WB-Cedar	47	43	-	53.5
OSU	Ruby Lee	44	-	-	53.7
WestBred	Santa Fe	40	42	40	52.6
AgriPro	Doans	37	37	40	54.3
OSU	Billings	36	36	40	52.1
WestBred	Armour	36	39	43	49.6
AgriPro	Jackpot	36	37	41	50.8
KSU	Everest	35	41	45	54.2
OSU	OK Bullet	35	38	37	56.4
KSU	Fuller	34	37	39	49.8
KSU	Jagger	33	35	36	49.6
OSU	Gallagher	33	36	39	52.9
OSU	Deliver	33	35	37	53.9
OSU	Garrison	31	-	-	52.7
OSU	Endurance	31	39	41	52.5
OSU	Iba	31	-	-	50.4
AgriPro	Greer	30	37	38	48.1
TAMU	TAM 401	29	37	39	49.8
AgriPro	CJ	29	-	-	51.5
OSU	Duster	28	38	40	51.3
OSU	Pete	27	-	-	50.6
	Mean	34	38	40	51.9
	LSD $_{(0.05)}$	10	6	5	2.8

Notes: Severe lodging occurred in all varieties during early/mid grainfill. All plots were rated a '7-8' for lodging at time of harvest using a 0 - 10 scale with 0 representing no lodging and 10 representing complete lodging

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

Marshall Dual Purpose Wheat Variety Trial

Cooperator: Fuxa Farms | **Tillage: Conventional till**
Soil type: Kirkland silt loam | **Management: Dual purpose**
Planting date: 09-26-11 | **Previous crop: Wheat**
Harvest date: 05-22-12 | **Soil test: pH = 5.1, P = 107, K = 424**

		Grain Yield			Test Weight
Source	Variety	2011-12	2-Year	3-Year	2011-12
		----------bu/ac----------			----lb/bu----
OSU	Duster	49	36	43	58.5
OSU	Iba	48	37	-	59.6
AgriPro	Doans	47	36	41	61.3
AgriPro	CJ	46	-	-	58.8
WestBred	WB-Cedar	45	36	-	58.8
OSU	Endurance	44	36	41	58.0
KSU	Fuller	41	30	36	57.5
WestBred	Santa Fe	39	29	34	58.6
KSU	Everest	39	33	-	59.1
OSU	Ruby Lee	38	-	-	57.1
OSU	Deliver	38	29	32	59.1
AgriPro	Jackpot	38	28	34	57.9
OSU	Gallagher	37	-	-	58.4
TAMU	TAM 401	37	27	31	55.5
OSU	Billings	37	25	32	58.6
AgriPro	Greer	31	26	30	53.8
OSU	OK Bullet	31	23	29	58.5
KSU	Jagger	28	23	28	55.6
WestBred	Armour	22	17	-	49.7
OSU	Garrison	20	17	22	54.5
OSU	Pete	18	16	27	51.7
Experimentals					
	OK08328	43	-	-	58.3
	Mean	37	28	33	57.2
	LSD $_{(0.05)}$	7	4	3	1.5

Notes: Severe stripe rust resulted in premature senescence of susceptible varieties.

Marshall Grain-Only Wheat Variety Trial

Cooperator: Fuxa Farms | **Tillage: Conventional till**
Soil type: Kirkland silt loam | **Management: Dual purpose**
Planting date: 10-19-11 | **Previous crop: Wheat**
Harvest date: 05-22-12 | **Soil test: pH = 5.1, P = 107, K = 424**

		Grain Yield			Test Weight
Source	Variety	2011-12	2-Year	3-Year	2011-12
		----------bu/ac----------			----lb/bu----
WestBred	WB-Cedar	65	47	-	57.5
OSU	Gallagher	56	-	-	56.8
OSU	Billings	53	41	41	58.3
OSU	Iba	51	-	-	57.6
AgriPro	CJ	51	-	-	55.9
TAMU	TAM 401	47	39	39	52.9
OSU	Endurance	47	38	39	55.0
OSU	Duster	46	39	41	55.5
AgriPro	Doans	45	36	36	59.4
KSU	Fuller	44	38	38	54.4
AgriPro	Greer	42	36	36	51.3
AgriPro	Jackpot	42	37	38	54.9
OSU	Deliver	42	34	34	57.1
WestBred	Santa Fe	41	34	34	55.1
KSU	Everest	40	35	-	56.5
KSU	Jagger	39	35	32	53.0
OSU	Ruby Lee	39	-	-	53.6
OSU	OK Bullet	37	31	31	54.9
OSU	Garrison	22	26	31	49.2
WestBred	Armour	14	24	-	40.9
OSU	Pete	14	21	26	47.5
Experimentals					
	OK09634	47	-	-	57.1
	OK09915C	46	-	-	58.4
	Mean	42	35	35	54.5
	LSD $_{(0.05)}$	7	4	3	1.5

Notes: Severe stripe rust resulted in premature senescence of susceptible varieties.

Marshall Grain Only and Dual Purpose Wheat Variety Trials

Cooperator: Fuxa Farms **Tillage: Conventional Till** **Previous crop: Wheat** **Soil type: Kirkland silt loam**

Planting date: 09-26-11 (Dual Purpose) & 10-19-11 (Grain Only) **Harvest date: 05-22-12** **Soil test: pH = 5.1, P = 107, K = 424**

		Grain Yield									Test Weight		
		2011 - 2012			2-Year			3-Year			2011 - 2012		
Source	Variety	Grain Only	Dual Purpose	*Diff.*	Grain Only	Dual Purpose	*Diff.*	Grain Only	Dual Purpose	*Diff.*	Grain Only	Dual Purpose	*Diff.*
		bu/ac									lb/bu		
WestBred	WB-Cedar	65	45	-20	47	36	-11	-	-	-	57.5	58.8	1
OSU	Gallagher	56	37	-18	-	-	-	-	-	-	56.8	58.4	2
OSU	Billings	53	37	-16	41	25	-16	41	32	-9	58.3	58.6	0
OSU	Iba	51	48	-3	-	37	-	-	-	-	57.6	59.6	2
AgriPro	CJ	51	46	-5	-	-	-	-	-	-	55.9	58.8	3
TAMU	TAM 401	47	37	-10	39	27	-11	39	31	-8	52.9	55.5	3
OSU	Endurance	47	44	-2	38	36	-2	39	41	2	55.0	58.0	3
OSU	Duster	46	49	3	39	36	-3	41	43	2	55.5	58.5	3
AgriPro	Doans	45	47	2	36	36	0	36	41	5	59.4	61.3	2
KSU	Fuller	44	41	-4	38	30	-8	38	36	-2	54.4	57.5	3
AgriPro	Greer	42	31	-11	36	26	-10	36	30	-5	51.3	53.8	3
AgriPro	Jackpot	42	38	-5	37	28	-9	38	34	-4	54.9	57.9	3
OSU	Deliver	42	38	-4	34	29	-5	34	32	-2	57.1	59.1	2
WestBred	Santa Fe	41	39	-2	34	29	-5	34	34	0	55.1	58.6	3
KSU	Everest	40	39	0	35	33	-2	-	-	-	56.5	59.1	3
KSU	Jagger	39	28	-12	35	23	-12	32	28	-4	53.0	55.6	3
OSU	Ruby Lee	39	38	-1	-	-	-	-	-	-	53.6	57.1	3
OSU	OK Bullet	37	31	-6	31	23	-9	31	29	-2	54.9	58.5	4
OSU	Garrison	22	20	-1	26	17	-9	31	22	-8	49.2	54.5	5
WestBred	Armour	14	22	7	24	17	-7	-	-	-	40.9	49.7	9
OSU	Pete	14	18	4	21	16	-6	26	27	1	47.5	51.7	4
Experimentals													
	OK09634	47	-	-	-	-	-	-	-	-	57.1	-	-
	OK09915C	46	-	-	-	-	-	-	-	-	58.4	-	-
	OK08328	-	43	-	-	-	-	-	-	-	-	58.3	-
	Mean	42	37	*-5*	35	28	*-7*	35	33	*-3*	54.5	57.2	*2.7*
	LSD $_{(0.05)}$		7			4			3			1.5	

Notes: Severe stripe rust resulted in premature senescence of susceptible varieties.

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

McLoud Wheat Variety Trial

Cooperator: Gerod McKinley | **Tillage: Conventional till**
Soil type: Keokuk silt loam | **Management: Grain only**
Planting date: 10-19-11 | **Previous crop: Corn**
Harvest date: 06-11-12 | **Soil test: pH = 5.4, P = 350, K = 530**
Fungicide = 10.5 oz/A Quilt Xcel + 1% v/v COC applied at approx. 10% head emergence

		Grain Yield		Test Weight
Source	Variety	2011-12	2-Year	2011-12
		----------bu/ac----------		--lb/bu--
OSU	Ruby Lee	77	63	54.9
OSU	Gallagher	75	66	51.3
OSU	Garrison	73	-	53.3
KSU	Everest	73	60	55.3
OSU	Billings	72	59	50.8
WestBred	Armour	72	59	52.8
AgriPro	Greer	71	62	50.4
WestBred	WB-Cedar	71	60	53.6
AgriPro	Jackpot	69	57	52.8
OSU	Iba	67	60	53.0
KSU	Jagger	66	54	51.2
AgriPro	CJ	64	-	54.1
OSU	OK Bullet	63	52	54.8
OSU	Endurance	62	55	52.3
KSU	Fuller	62	54	53.4
OSU	2174	57	53	54.9
AgriPro	Doans	56	48	55.8
OSU	Duster	55	53	50.6
WestBred	Santa Fe	52	47	50.4
Experimentals				
	OK08328	62	-	51.3
	OK08413	60	-	50.0
	Mean	66	57	52.8
	LSD $_{(0.05)}$	13	7	1.7

Notes: Severe lodging occurred in all varieties between boot and head emergence. All plots were rated a '10' for lodging at time of harvest using a 0 - 10 scale with 0 representing no lodging and 10 representing complete lodging

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Olustee Wheat Variety Trial

Cooperator: David Bush | **Tillage: No-till**
Soil type: Tillman silt loam | **Management: Grain only**
Planting date: dusted in 10-24-11; rain occurred 10-27-11 | **Previous crop: Wheat**
Harvest date: 05-16-12 | **Soil test: pH = 7.9, P = 24, K = 954**

		Grain Yield			Test Weight
Source	Variety	2011-12	2-Year	3-Year	2011-12
		----------bu/ac----------			-----lb/bu-----
KSU	Jagger	33	25	29	58.4
TAMU	TAM 203	31	25	29	57.4
OSU	Pete	31	24	31	59.5
OSU	Ruby Lee	31	-	-	59.4
AgriPro	Jackpot	31	24	30	58.7
KSU	Fuller	30	24	32	57.9
WestBred	Winterhawk	30	-	-	59.9
KSU	Everest	29	22	-	59.3
OSU	Deliver	29	-	-	59.1
WestBred	Armour	29	22	-	57.5
OSU	Endurance	29	23	30	57.6
OSU	Gallagher	29	21	-	57.9
AgriPro	Greer	27	23	31	56.7
OSU	Duster	27	23	32	58.2
AgriPro	Doans	26	21	30	59.2
OSU	Billings	26	18	-	57.3
TAMU	TAM 401	26	21	28	56.0
OSU	Iba	25	-	-	58.3
AgriPro	Fannin	25	18	25	58.1
OSU	Garrison	24	18	-	57.6
OSU	OK Bullet	23	20	28	58.2
Experimentals					
	OK08328	29	-	-	56.7
	Mean	28	22	30	58.1
	LSD $_{(0.05)}$	5	2	2	0.6

Notes: Season-long, severe drought conditions with abnormally warm winter

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

Thomas Wheat Variety Trial

Cooperator: Rick Payne | **Tillage: Conventional till**
Soil type: Pond Creek silt loam | **Management: Grain only**
Planting date: 09-30-11 | **Previous crop: Wheat**
Harvest date: 05-29-12 | **Soil test: pH = 5.1, P = 116, K = 468**

		Grain Yield	
Source	Variety	2011-12	Lodging*
		--bu/ac---	
OSU	Iba	45	8
OSU	Billings	37	5
AgriPro	Doans	36	8
TAMU	TAM 401	34	10
WestBred	Winterhawk	34	3
KSU	Everest	30	6
OSU	Ruby Lee	29	8
OSU	Deliver	28	5
AgriPro	Jackpot	27	7
OSU	Duster	26	9
TAMU	TAM 203	26	8
AgriPro	Fannin	25	9
OSU	Gallagher	23	7
OSU	OK Bullet	21	1
AgriPro	Greer	21	9
KSU	Fuller	21	3
OSU	Pete	20	7
OSU	Garrison	20	6
WestBred	Armour	18	4
OSU	Endurance	16	8
KSU	Jagger	13	9
Experimentals			
	OK08328	34	6
	Mean	27	
	LSD $_{(0.05)}$	18	

*Lodging notes taken at time of harvest using a 0 - 10 scale with 0 representing no lodging and 10 representing complete lodging

Notes: Grain samples were too small to collect test weight measurements. Severe lodging occurred slightly after heading.

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Plant height at harvest for selected 2012 Oklahoma wheat variety trials

Variety	Alva	Apache	Balko	Buffalo	Chattanooga	Gage	Homestead	Hooker	Keyes	Kildare	Kingfisher	Lahoma	Marshall DP	Marshall GO	Olustee	Thomas
	plant height (inches)															
AP503 CL2	31	-	-	26	-	23	-	-	-	-	-	-	-	-	-	-
Armour	31	29	18	27	29	23	35	28	20	31	33	28	27	30	22	34
Bill Brown	-	-	20	-	-	-	-	28	17	-	-	-	-	-	-	-
Billings	31	32	22	27	28	29	36	30	16	31	33	29	26	33	23	40
Centerfield	32	-	-	28	-	26	-	-	-	-	35	-	-	-	-	-
CJ	34	-	26	28	-	26	39	30	19	35	38	30	33	36	-	-
Deliver	-	32	-	-	26	-	37	-	-	33	35	33	31	31	24	34
Doans	33	32	23	28	25	28	37	30	21	35	35	34	33	34	21	37
Duster	31	28	19	30	30	26	35	31	18	31	34	31	28	31	22	33
Endurance	32	31	21	29	26	27	37	30	20	33	37	34	29	33	23	34
Everest	28	31	-	27	23	24	36	-	-	30	30	33	28	33	21	36
Fannin	-	28	-	-	27	-	-	-	-	-	-	-	-	-	23	28
Fuller	32	31	-	27	28	26	39	-	-	34	34	30	31	35	23	34
Gallagher	31	33	22	29	24	-	35	29	19	33	34	31	32	33	22	35
Garrison	32	33	18	27	26	23	37	29	20	32	35	35	27	32	22	36
Greer	29	33	23	28	26	28	35	26	19	35	35	32	28	33	24	32
Hatcher	-	-	19	-	-	-	-	26	18	-	-	-	-	-	-	-
Iba	30	32	22	29	26	-	34	28	19	32	34	33	31	33	23	33
Jackpot	30	32	25	28	25	26	38	29	20	35	36	36	30	34	24	37
Jagger	32	31	24	30	27	25	37	29	20	33	31	34	28	34	24	34
Mace	-	-	23	-	-	-	-	29	17	-	-	-	-	-	-	-
OK Bullet	33	35	-	30	26	28	40	-	-	36	36	36	32	37	23	37
Pete	-	30	-	-	24	-	37	-	-	30	29	31	28	32	22	36
Ruby Lee	36	31	24	30	35	28	40	33	21	34	36	35	30	36	25	38
Santa Fe	-	-	-	-	-	-	37	-	-	31	35	37	30	33	-	-
T153	-	-	21	-	-	-	-	29	16	-	-	-	-	-	-	-
T158	-	-	21	-	-	-	-	27	18	-	-	-	-	-	-	-
TAM 111	32	-	23	29	-	26	-	28	18	-	-	-	-	-	-	-
TAM 112	32	-	20	29	-	26	-	30	22	-	-	-	-	-	-	-
TAM 113	32	-	18	28	-	26	-	29	20	-	-	-	-	-	-	-
TAM 203	-	31	-	-	27	-	-	-	-	-	-	-	-	-	24	34
TAM 401	-	30	-	-	25	-	38	-	-	33	33	34	29	34	24	33
WB-Cedar	-	-	-	-	-	-	35	-	-	28	34	28	25	32	-	-
Winterhawk	31	-	23	28	-	27	-	27	20	-	-	-	-	-	24	32
OCW00S063S-1B	-	-	-	-	-	-	-	-	17	-	-	-	-	-	-	-
OK05312	-	-	19	-	-	-	-	26	17	-	-	-	-	-	-	-
OK08229	-	-	20	-	-	25	-	28	17	-	-	-	-	-	-	-
OK08328	30	28	24	28	24	24	37	26	16	-	34	28	26	-	24	34
OK08413	-	-	-	-	-	-	-	-	-	34	-	-	-	-	-	-
OK08707W	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-
OK09125	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-
OK09634	32	32	-	-	-	-	-	-	-	-	36	32	-	37	-	-
OK0986146W	-	-	-	-	-	-	-	25	18	-	-	-	-	-	-	-
OK09915C	31	-	-	29	-	29	-	-	-	-	37	34	-	34	-	-

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Fall forage production and date of first hollow stem in winter wheat varieties during the 2011-2012 crop year

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Introduction

Fall forage production potential is just one consideration in deciding which wheat 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 slight advantages in 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, fall forage production is generally not the most important selection criteria used by Oklahoma wheat growers, but it is one that should be considered.

Fall forage production by winter wheat is determined by genetic potential, management, and environmental factors. The purpose of this publication is to quantify some of the genetic differences in forage production potential and grazing duration among the most popular wheat varieties grown in Oklahoma. Management factors such as planting date, seeding rate, and soil fertility are very influential and are frequently more important than variety in determining forage production. Environmental factors such as rainfall 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 wheat 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 the state of Oklahoma. The forage trials are conducted under the umbrella of the Oklahoma State University Small Grains Variety Performance Tests at our El Reno and Stillwater, OK test sites. Weather data for these two sites are provided in Figures 1 and 2. Please note the difference in scale on the rainfall data.

A randomized complete block design with four replications was used at each site. Forage was measured by hand clipping two 1-m by 1-row samples at random sites within each plot. Samples were then placed in a forced-air dryer for approximately 7 days and weighed. All plots were sown at 120 lb/A in a conventionally-tilled seedbed and received 50 lb/ac of 18-46-0 in furrow at planting. Fertility, planting date, and harvest date information are provided in Table 1.

Results

Extremely hot and extremely dry. There is no other way to describe the summer of 2011. Oklahoma farmers and ranchers entered the month of September 2011 with almost no soil moisture and extreme heat that quickly dissipated the little rainfall that occurred. Hay supplies were gone along with any remaining pastures, so the desperate need for forage of any kind pushed most producers to roll the dice and dust in wheat for pasture. A break from the extreme heat and a few timely rains in late September allowed wheat to establish itself but did not provide much opportunity for growth. The pattern of just enough moisture to survive persisted throughout the winter in western Oklahoma and the Panhandle.

Central and west-central Oklahoma was a different story. What began as a slow wheat forage year turned into one of the best wheat pasture years in recent memory for farmers and ranchers in this region. Timely rainfall throughout October, November, and December combined with one of the warmest winters on record resulted in rapid forage production and outstanding average daily gains. High levels of residual soil nitrogen (Table 1) left by failed crops in 2011 also spurred wheat forage production onward. In fact, many producers were unable to secure sufficient stocker cattle to keep up with wheat forage.

Fall forage production at Stillwater ranged from 2,980 lbs/ac (TAM 203) to 4,020 lbs/ac (Gallagher) with average

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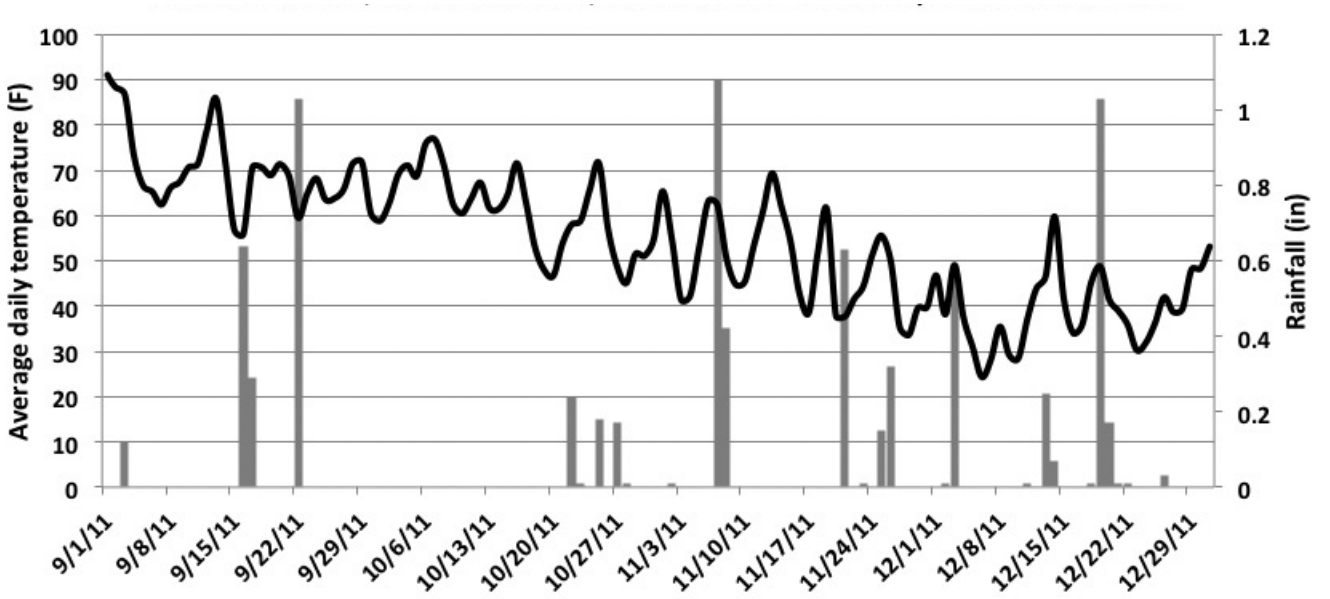

Figure 1. Average daily temperature (line graph) and rainfall (bar chart) from September 1 to December 31, 2011 at Stillwater, OK. Weather data courtesy Oklahoma Mesonet.

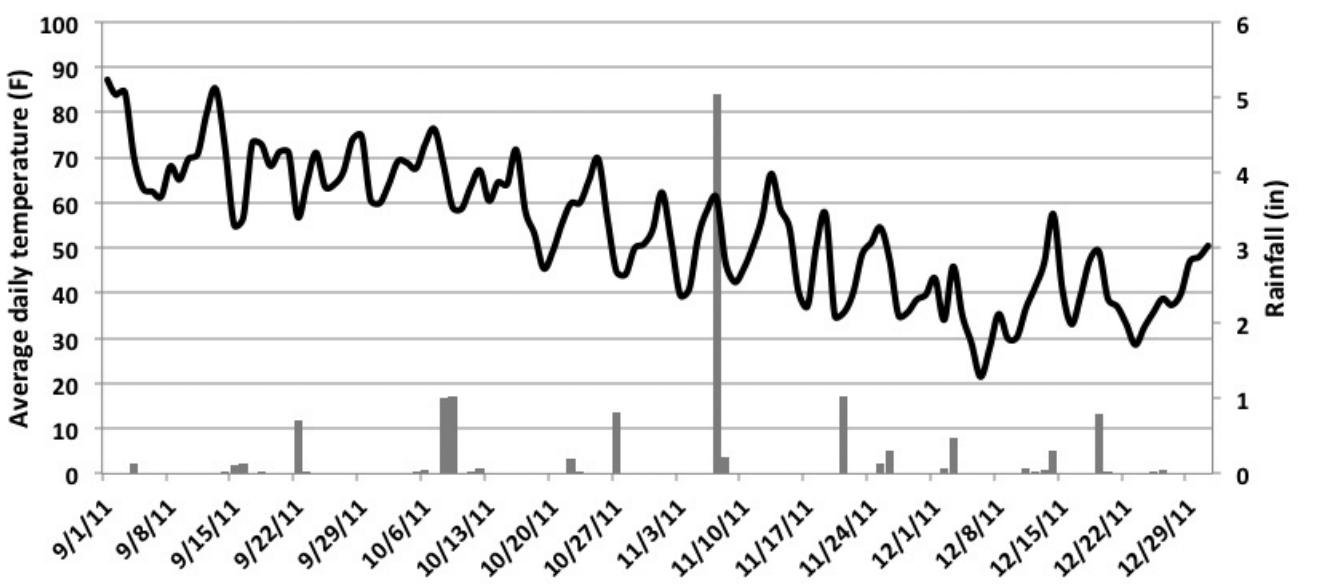

Figure 2. Average daily temperature (line graph) and rainfall (bar chart) from September 1 to December 31, 2011 at El Reno, OK. Weather data courtesy Oklahoma Mesonet.

Table 1. Location information for 2010-2011 OSU wheat forage trials.

	Planting date	*Sampling date*	*pH*	*N*	*P*	*K*
El Reno	09/27/11	01/06/12	6.8	119	71	337
Stillwater	09/20/11	12/12/11	5.7	286	157	373

Table 2. Fall forage production by winter wheat varieties at Stillwater, OK in 2011.

Source	*Variety*	*2011*	*2-Year*	*3-Year*	*4-Year*
		----------lbs dry forage/acre----------			
OSU	Gallagher	4,020†	-	-	-
UNL	Mace	3,870	3,230	-	-
CSU	Hatcher	3,830	3,380	-	-
OSU	Endurance	3,770	3,300	3,020	3,000
AgriPro	Fannin	3,760	3,320	3,130	3,240
OSU	Centerfield	3,730	3,260	2,930	3,030
KSU	Jagger	3,680	3,040	2,800	2,910
AgriPro	Doans	3,640	3,240	2,980	3,040
TAMU	TAM 111	3,640	3,170	2,870	2,990
LCS	T153	3,580	-	-	-
OSU	Duster	3,560	3,190	3,060	3,200
OSU	Iba	3,550	3,340	-	-
TAMU	TAM 401	3,520	3,090	2,920	-
OSU	Deliver	3,510	3,090	2,840	2,890
LCS	T-158	3,490	3,150	-	-
OSU	Ruby Lee	3,480	3,210	2,980	-
WestBred	Winterhawk	3,480	3,180	2,830	2,860
OSU	Pete	3,440	3,150	2,880	-
OSU	Garrison	3,430	3,070	2,660	-
KSU	Everest	3,400	2,910	2,600	-
OSU	Billings	3,360	3,160	2,930	-
TAMU	TAM 113	3,340	-	-	-
CSU	Bill Brown	3,330	3,250	-	-
AgriPro	CJ	3,330	-	-	-
AgriPro	Jackpot	3,330	3,040	2,860	2,990
WestBred	Armour	3,310	3,170	2,930	3,050
WestBred	Santa Fe	3,310	3,010	2,870	2,950
WestBred	WB-Cedar	3,280	2,990	-	-
TAMU	TAM 112	3,220	3,070	2,830	2,940
AgriPro	Greer	3,210	3,050	2,750	-
OSU	OK Bullet	3,190	2,950	2,870	2,990
KSU	Fuller	3,120	2,910	2,750	2,880
TAMU	TAM 203	2,980	2,800	2,810	2,850
	Average	**3,480**	**3,130**	**2,870**	**2,990**
	LSD	580	420	290	260

† Shaded numbers are not statistically different from the highest-yielding variety within a column.

Table 3. Fall forage production by winter wheat varieties at El Reno, OK in 2011.

Source	*Variety*	*2011*	*2-Year†*	*3-Year*
		----------lbs. dry forage/acre----------		
OSU	Ruby Lee	2,840‡	-	-
KSU	Jagger	2,770	2,760	2,310
AgriPro	Fannin	2,750	3,300	2,680
WestBred	Armour	2,700	3,190	2,680
OSU	Iba	2,670	-	-
AgriPro	Greer	2,660	3,100	-
KSU	Fuller	2,660	2,820	2,480
OSU	Deliver	2,600	2,880	2,440
WestBred	Santa Fe	2,580	2,850	2,370
OSU	OK Bullet	2,550	3,170	2,680
TAMU	TAM 401	2,540	2,960	-
OSU	Gallagher	2,520	2,670	-
OSU	Pete	2,480	2,720	-
OSU	Billings	2,400	3,060	-
OSU	Duster	2,380	2,940	2,530
OSU	Garrison	2,350	-	-
WestBred	WB-Cedar	2,350	2,730	-
AgriPro	CJ	2,270	-	-
KSU	Everest	2,270	2,800	-
OSU	Endurance	2,240	2,560	2,210
AgriPro	Jackpot	2,160	2,710	2,310
AgriPro	Doans	2,110	2,570	2,330
	Average	**2,490**	**2,880**	**2,460**
	LSD	550	460	370

† Data were not reported in 2009. 2-year averages include 2010 and 2011 data. 3-year averages include 2008, 2010, and 2011 data.
‡ Shaded cells within a column are not statistically different from the greatest value within that column

production of 3,480 lbs/ac (Table 2). Fall forage production at El Reno was slightly less, but still impressive, and ranged from 2,110 lbs/ac (Doans) to 2,840 lbs/ac (Ruby Lee) with average production of 2,490 lbs/ac (Table 3). As with previous years, there was a large grouping of high-yielding varieties with statistically equal forage production at both sites. This was true for both the single year results and the multi-year averages. Given the wide selection of varieties with suitable fall forage production, dual-purpose producers should also place heavy emphasis on the dual-purpose grain yield potential of these varieties and use grain yield after grazing as a selection tool for choosing among top forage producers.

First hollow stem data are reported in 'day of year' (day) format (Table 4). To provide reference, keep in mind that March 1 is day 61 (2012 is a leap year). Average occurrence of first hollow stem at Stillwater and El Reno in 2012 was day 52 and 55, respectively. This was eleven and nine days earlier than in 2011 and was the result of the warm winter, adequate rainfall, and high levels of residual nitrogen (Table 1, Figures 1 and 2). There was a 39-day range in occurrence of first hollow stem at Stillwater and a 17-day range at El Reno. The wider range of dates of first hollow stem at Stillwater was the result of a broader selection of varieties and more frequent early-season sampling. Even with this variation in date of first hollow stem between locations, the relative rankings of varieties (i.e. early, medium, or late) were fairly consistent.

Table 4. Occurrence of first hollow stem (day of year) for winter wheat varieties sown in 2011 and measured in 2012 at Stillwater and El Reno, OK.

Source	*Variety*	*Stillwater*	*El Reno*
		-----day of year-----	
AgriPro	Fannin	28	49
KSU	Jagger	33	50
AgriPro	Greer	40	55
TAMU	TAM 112	40	-
CSU	Hatcher	40	-
OSU	Gallagher	40	52
OSU	Billings	46	49
TAMU	TAM 401	46	47
KSU	Fuller	49	45
WestBred	Armour	49	55
OSU	Garrison	49	55
AgriPro	Jackpot	49	55
AgriPro	TAM 203	49	-
CSU	Bill Brown	49	-
WestBred	Santa Fe	51	55
KSU	Everest	51	50
TAMU	TAM 113	51	-
LCS	T153	51	-
OSU	Ruby Lee	52	58
WestBred	Winterhawk	53	-
AgriPro	CJ	53	55
OSU	OK Bullet	55	55
WestBred	WB-Cedar	55	55
AgriPro	Doans	55	69
OSU	Pete	55	58
OSU	Deliver	56	61
OSU	Duster	58	58
OSU	Iba	58	58
TAMU	TAM 111	60	-
AgriPro	AP503 CL2	60	-
OSU	Endurance	62	66
LCS	T158	62	-
OSU	Centerfield	64	-
OSU	2174	64	-
UNL	Mace	67	-
Experimentals			
	OCW00S063S-1B	28	-
	OK09634	33	-
	OK0986146W	51	-
	OK09125	55	-
	OK08229	56	-
	OK08707W	58	-
	OK08413	60	-
	OK05312	60	-
	OK08328	62	-
	OK09915C	62	-
	Average	**52**	**55**

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Seed donated by:

AgriPro Wheat, Vernon, TX
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Husker Genetics, Lincoln, NE
Kansas Wheat Alliance, Manhattan, KS
Limagrain Cereal Seeds, Ft. Collins, CO
Oklahoma Genetics Inc, Stillwater, OK
Watley Seed Company, Spearman, TX
WestBred LLC, Haven, KS

Seed Source Abbreviations

CSU = Colorado State University
KSU = Kansas State University
LCS = Limagrain Cereal Seeds
OSU = Oklahoma State University
UNL = University of Nebraska-Lincoln
TAMU = Texas AgriLife Research