

Current Report

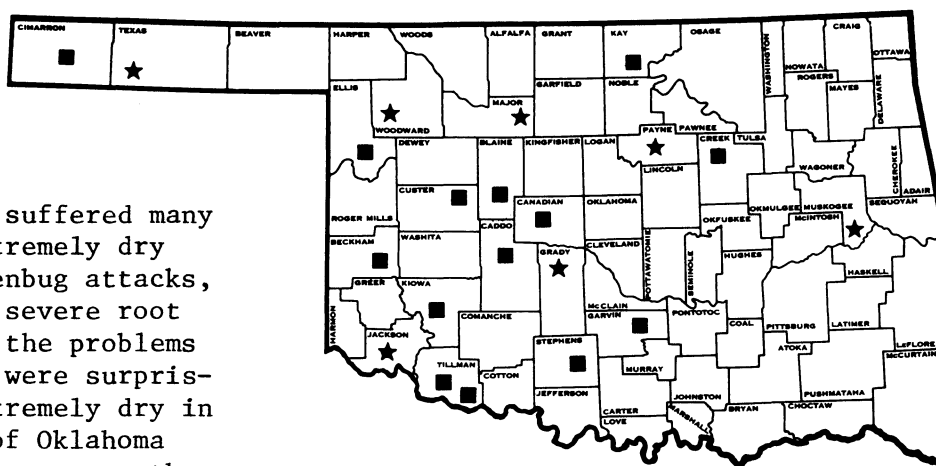
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PERFORMANCE OF WHEAT VARIETIES, OKLAHOMA - 1976

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★ Research Stations

■ Research Plots
on Farmers' Fields



The 1976 wheat crop suffered many adversities including extremely dry weather, devastating greenbug attacks, high weed population and severe root rot, but in spite of all the problems the yields in most cases were surprisingly high. Although extremely dry in the northern two-thirds of Oklahoma during most of the growing season the late rains of April and May combined with the cool temperatures during that time allowed the heads to fill out exceptionally well and produce plump kernels.

In general the later maturing varieties performed better in 1976 because they had more time to take advantage of the late rains and cool temperatures. In the fall of 1975 there were 23 variety test plots planted. One plot was lost to dry weather, one to greenbugs and one to hail. In addition 3 locations in northern and northwestern Oklahoma were not seeded due to the extremely dry conditions that prevailed at seeding time.

Tables 1 through 6 show the yield and percent yield as compared to Triumph 64, of the 16 varieties that were included in the test. Table 7 lists the pertinent information relative to each location.

TABLE 1
GRAIN YIELD (BUSHEL PER ACRE) AND PERCENT OF TRIUMPH
64 FOR ENTRIES IN WHEAT VARIETY TEST GROWN AT MUSKOGEE,
OKLAHOMA IN 1976

Entry	Yield	% TRI 64
Sage	54.5*	151
Osage	53.5*	148
Scout 66	50.4*	140
Lancota	50.4*	140
Centurk	49.9*	138
Homestead	47.1	130
Caprock	45.6	126
Rall	45.6	126
Pioneer 915	44.8	124
Tam W 101	44.1	122
Concho	43.6	121
Baca	42.9	119
Tam W 103	37.5	104
Triumph 64	36.1	100
DeKalb 582	34.9	97
Danne	34.9	97
Average	44.7 Bu.	
L.S.D. (.05)	7.2 Bu.	
C.V.	11.3 %	

*Entries in first level of statistical significance.

NORTHWESTERN

TABLE 2
GRAIN YIELD (BUSHEL PER ACRE) AND PERCENT OF TRIUMPH 64 FOR
ENTRIES IN WHEAT VARIETY TESTS GROWN IN NORTHWESTERN OKLAHOMA, 1976

	Boise City ¹		Goodwell ¹		Woodward		Arnett		Average Yield
	Yield	% TRI 64	Yield	% TRI 64	Yield	% TRI 64	Yield	% TRI 64	
Centurk	51.2*	124	67.2*	147	45.5*	142	38.4*	112	50.6
Sage	47.4*	115	68.9*	151	40.4*	126	42.0*	123	49.7
Osage	40.5	98	71.6*	157	35.0	109	42.7*	125	47.5
Scout 66	49.3*	120	64.2	141	34.4	108	37.6*	110	46.4
Homestead	42.7	104	64.6	142	35.9	112	37.0	108	45.0
Rall	45.0*	109	63.1	138	37.6	118	32.9	96	44.7
Pioneer 915	48.8*	118	62.0	136	33.6	105	32.9	96	44.3
Baca	45.6*	111	60.6	133	32.6	102	37.5	110	44.1
Danne	45.0*	109	58.0	127	27.3	85	36.6	107	41.7
Lancota	39.2	95	63.0	138	30.4	95	33.9	99	41.6
Concho	41.2	100	45.2	99	38.6*	121	36.1	106	40.3
Tam W 101	38.7	94	52.0	114	22.6	71	41.2*	120	38.6
Triumph 64	41.2	100	45.6	100	32.0	100	34.2	100	38.3
DeKalb 582	38.7	94	51.8	114	30.4	95	28.0	82	37.2
Caprock	45.3*	110	38.2	84	30.0	94	31.9	93	36.3
Tam W 103	40.0	97	43.4	95	24.9	78	32.3	94	35.1
Average	43.7 Bu.		57.5 Bu.		33.2 Bu.		36.0 Bu.		
L.S.D. (.05)	6.9 Bu.		6.5 Bu.		7.3 Bu.		4.4 Bu.		
C.V.	11.1 %		7.9 %		15.5 %		8.7 %		

¹Irrigated

*Entries in first level of statistical significance.

NORTHCENTRAL

TABLE 3
GRAIN YIELD (BUSHEL PER ACRE) AND PERCENT OF TRIUMPH 64 FOR
ENTRIES IN WHEAT VARIETY TESTS IN NORTHCENTRAL OKLAHOMA, 1976

	El Reno		Ponca City		Lahoma		Stillwater		Average Yield
	Yield	% TRI 64	Yield	% TRI 64	Yield	% TRI 64	Yield	% TRI 64	
Centurk	70.9*	115	54.2*	114	54.3	140	41.3*	125	55.2
Rall	62.6	96	---	---	59.5*	153	43.4*	131	55.2
Sage	65.4*	106	53.7*	113	55.4*	142	34.4	104	52.2
Osage	61.2	99	51.0	107	56.9*	146	36.6	111	51.4
Pioneer 915	66.2*	107	56.4*	118	53.5	138	29.0	88	51.3
Tam W 101	61.8	100	53.7*	113	49.8	128	31.4	95	49.2
Baca	58.8	95	45.8	96	56.4*	145	35.5	107	49.1
Scout 66	62.1	100	46.5	97	49.3	127	35.4	107	48.3
Concho	61.2	99	---	---	45.6	117	37.4	113	48.1
Lancota	59.1	96	48.8	102	54.5	140	25.6	77	47.0
Homestead	57.2	93	48.4	101	48.5	125	31.5	95	46.4
Triumph 64	61.8	100	47.7	100	38.9	100	33.1	100	45.4
DeKalb 582	61.5	100	41.7	87	44.3	114	32.8	99	45.1
Danne	54.1	88	47.8	100	44.9	115	30.6	92	44.4
Tam W 103	56.6	92	38.8	81	35.5	91	29.3	89	40.0
Caprock	60.5	98	25.0	52	28.3	73	25.8	78	34.9
Average	61.3 Bu.		47.1 Bu.		48.5 Bu.		33.3 Bu.		
L.S.D. (.05)	8.1 Bu.		5.4 Bu.		4.4 Bu.		5.3 Bu.		
C.V.	9.2 %		8.1 %		8.5 %		11.2 %		

*Entries in first level of statistical significance.

SOUTHCENTRAL

TABLE 4
GRAIN YIELD (BUSHEL PER ACRE) AND PERCENT OF TRIUMPH 64 FOR
ENTRIES IN WHEAT VARIETY TESTS IN SOUTHCENTRAL OKLAHOMA, 1976

	Duncan		Pauls Valley		Chickasha		Average Yield
	Yield	% TRI 64	Yield	% TRI 64	Yield	% TRI 64	
Centurk	41.6*	116	63.6*	120	64.1*	198	56.4
Tam W 103	34.4	96	62.0*	117	56.6*	175	51.0
Pioneer 915	28.8	80	66.1*	124	45.3	140	46.7
Rall	39.9*	111	52.7	99	47.4	147	46.7
Scout 66	39.7*	110	47.8	90	48.8	151	45.4
Sage	37.8*	105	51.8	98	45.2	140	44.9
Tam W 101	31.6	88	62.1*	117	40.3	125	44.7
Lancota	33.7	94	54.9	103	45.0	139	44.5
Osage	33.0	92	55.8	105	42.9	133	43.9
Homestead	33.0	92	54.6	103	39.1	121	42.2
Danne	33.3	93	56.7	107	36.1	112	42.0
DeKalb 582	31.0	86	59.8	113	33.9	105	41.6
Baca	38.7*	108	45.6	86	37.7	117	40.6
Triumph 64	36.0	100	53.1	100	32.3	100	40.5
Concho	34.6	96	54.6	103	21.7	67	37.0
Caprock	25.6	71	55.5	105	28.0	87	36.4
Average	34.5 Bu.		56.0 Bu.		41.5 Bu.		
L.S.D. (.05)	4.3 Bu.		5.8 Bu.		10.4 Bu.		
C.V.	8.7 %		7.2 %		17.9 %		

*Entries in first level of statistical significance.

WESTERN

TABLE 5
GRAIN YIELD (BUSHEL PER ACRE) AND PERCENT OF TRIUMPH 64 FOR
ENTRIES IN WHEAT VARIETY TESTS IN WESTERN OKLAHOMA, 1976

	Sayre		Thomas		Hinton		Geary		Average Yield
	Yield	% TRI 64	Yield	% TRI 64	Yield	% TRI 64	Yield	% TRI 64	
Osage	37.2*	141	55.0*	191	54.2*	120	51.9*	143	49.6
Sage	37.8*	143	41.5	144	55.6*	123	49.5*	136	46.1
Centurk	33.2	126	40.3	140	59.0*	131	50.2	138	45.7
Concho	36.7*	139	39.1	136	54.4*	120	47.9	132	44.5
Pioneer 915	36.6*	139	41.1	143	47.0	104	44.5	122	43.4
Scout 66	37.6*	142	36.1	125	49.4	109	47.5	130	42.7
Rall	40.3*	153	37.2	129	---	---	50.0*	137	42.5
Lancota	35.2*	133	42.4	147	44.2	98	45.6	125	41.9
Baca	36.2*	137	38.9	135	51.3	113	48.7*	134	41.6
Tam W 101	33.3	126	34.0	118	51.0	113	46.7	128	41.2
Homestead	28.0	106	35.9	125	50.4	112	44.3	122	39.7
Danne	29.6	112	33.6	117	48.8	108	41.6	114	38.4
DeKalb 582	25.5	97	32.4	113	42.4	94	37.4	103	35.0
Caprock	24.3	92	29.8	103	48.0	106	36.6	101	34.7
Triumph 64	26.4	100	28.8	100	45.2	100	36.4	100	34.2
Tam W 103	26.1	99	24.7	86	44.9	99	40.6	112	34.1
Average	32.8 Bu.		36.9 Bu.		49.7 Bu.		45.0 Bu.		
L.S.D. (.05)	6.9 Bu.		4.4 Bu.		7.3 Bu.		3.4 Bu.		
C.V.	14.9 %		8.1 %		10.2 %		5.4 %		

*Entries in first level of statistical significance.

SOUTHWESTERN

TABLE 6
GRAIN YIELD (BUSHEL PER ACRE) AND PERCENT OF TRIUMPH 64 FOR
ENTRIES IN WHEAT VARIETY TESTS GROWN IN SOUTHWESTERN OKLAHOMA, 1976

	<u>Chattanooga</u>		<u>Frederick</u>		<u>Hobart</u>		<u>Altus</u>		<u>Average Yield</u>
	<u>Yield</u>	<u>% TRI 64</u>	<u>Yield</u>	<u>% TRI 64</u>	<u>Yield</u>	<u>% TRI 64</u>	<u>Yield</u>	<u>% TRI 64</u>	
Osage	49.0*	117	49.3*	142	41.0*	124	45.5*	158	46.2
Scout 66	50.4*	120	45.0	130	41.7*	126	43.6*	151	45.2
Sage	45.1	107	46.9*	135	39.3*	119	49.0*	170	45.1
Concho	48.1*	115	44.3	128	37.9	115	48.9*	170	44.8
Centurk	52.6*	125	42.8	123	36.7	111	45.6*	158	44.4
Baca	47.6*	113	42.6	123	43.2	131	37.3	130	42.7
Rall	39.1	93	45.9	132	39.5	120	43.5*	151	42.0
Homestead	45.1	107	42.7	123	37.0	112	42.8	149	41.9
Danne	48.4*	115	40.2	116	36.6	111	37.8	131	40.8
Lancota	40.5	96	37.9	109	37.2	113	39.9	139	38.9
Tam W 101	44.8	107	39.5	114	33.0	100	36.8	128	38.5
Pioneer 915	42.7	102	34.7	100	34.1	103	40.0	139	37.9
Caprock	41.2	98	38.7	112	31.8	96	37.0	128	37.2
Tam W 103	41.3	98	38.6	111	26.2	79	33.9	118	35.0
Triumph 64	42.0	100	34.7	100	33.0	100	28.8	100	34.6
DeKalb 582	45.0	107	32.7	94	28.2	85	31.6	110	34.4
Average	41.0 Bu.		41.0 Bu.		36.0 Bu.		40.1 Bu.		
L.S.D. (.05)	3.1 Bu.		3.1 Bu.		4.8 Bu.		5.6 Bu.		
C.V.	5.3 %		5.3 %		9.2 %		9.6 %		

*Entries in first level of statistical significance.

TABLE 7
LOCATION, SEEDING DATE, HARVEST DATE, AND GROWING CONDITIONS
OF THE 20 WHEAT VARIETY PLOTS IN 1976

<u>Location</u>	<u>Soil Series</u>	<u>Seeding Date</u>	<u>Harvest Date</u>	<u>Growing Conditions</u>
Altus	Hollister-Tillman Loam	10- 2-75	6-10-76	Good
Arnett	Richfield Clay Loam	10-16-75	6-22-76	Dry
Boise City	Richfield Clay Loam	9-23-75	6-28-76	Good
Chattanooga	Foard Silt Loam	10- 9-75	6- 8-76	Good
Chickasha	Reinach Silt Loam	10-21-75	6-15-76	Dry
Duncan	Kirkland-Renfrow Silt Loam	10- 7-75	6- 9-76	Dry--Heavy Infestation Ryegrass
El Reno	Dale Clay Loam	10- 6-75	6-21-76	Good
Frederick	Tipton Fine Sandy Loam	10- 9-75	6- 4-76	Good
Geary	Bethany Silt Loam	10-10-75	6-17-76	Dry
Goodwell	Richfield Clay Loam	10-10-75	6-28-76	Good
Hobart	Enterprise Fine Sandy Loam	10- 3-75	6-16-76	Dry
Hinton	Pond Creek Silt Loam	10- 1-75	6-15-76	Good
Lahoma	Pond Creek Silt Loam	10-20-75	6-22-76	Dry
Muskogee	Taloka Silt Loam	9-30-75	6-17-76	Good
Pauls Valley	Reinach Silt Loam	10- 7-75	6-14-76	Good
Ponca City	Lela Clay	10-22-75	6-22-76	Dry
Sayre	Weymouth Clay Loam	10-16-75	6-16-76	Dry
Stillwater	Norge Loam	10- 8-75	6-16-76	Good
Thomas	St. Paul Clay Loam	10-10-75	6-17-76	Dry
Woodward	Woodward Sandy Loam	10- 7-75	6-21-76	Dry

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