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The OKLAHOMA State-wide SMALL GRAIN VARIETY TEST;

Progress Report, 1954.

By

Roy M. Oswalt and A. M. Schlehuber

Department of Agronomy

OKLAHOMA AGRICULTURAL EXPERIMENT STATION
Oklahoma A. & M. College, Stillwater
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in cooperation with

U. S. DEPARTMENT OF AGRICULTURE

The OKLAHOMA State-wide

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This is a report of yields of varieties of small grain grown in the Oklahoma State-wide Small Grain Variety Tests from 1950 to 1953, inclusive.

Average yields are reported for each location, and the locations are grouped by areas to give a more general view for each variety tested.

Locations in the Tests are of two types: "Supervised" and "Observational." The tables indicate the type of test by the symbols "(S)" and "(O)" respectively. Supervised tests are seeded, cared for, harvested and threshed by Experiment Station personnel. For observational tests, the Station supplies the seed and plans for seeding and harvesting. All other work connected with the tests is supervised by the county agricultural agent, vocational agriculture instructor, or others in charge of each test. The tests are described in more detail in Okla. Agri. Exp. Sta. Bul. B-366.

Land for the tests is furnished by cooperating farmers, who prepare the land in the same way as for their own crops.

These state-wide tests serve two purposes:

1. They give farmers and other interested persons in each locality an opportunity to see and compare recommended and other varieties, growing side by side in planned competitive tests.

2. They give the Station's small grain breeders an opportunity to observe the performance of a new variety in several locations in the state, before recommending it. This "on the spot" research is extremely valuable in indicating local adaptation of small grain varieties.

WHEAT
North and Northwestern Oklahoma

TABLE I. --Average Yields of 10 Varieties of Hard Red Winter Wheat Grown in the Oklahoma State-Wide Small Grain Test Plots; Northwestern Oklahoma, 1950-1953.

County & Location		No. Yrs. Grn.	Concho	Westar	Wichita	Comanche	Cheyenne	Ponca	Pawnee	Tenmarq	Triumph	Kiowa
Blaine (Okeene)	(S)	4	17.7	18.9	16.9	18.1	16.3	16.0	15.2	16.2	14.9	24.6 2/
Custer (Thomas)	(S)	3	23.3	23.3	23.1	20.5	20.6	20.6	19.3	19.0	22.3	22.6 2/
Kay (Ponca City)	(S)	4	33.0	28.0	30.8	29.1	27.2	26.4	25.6	26.7	26.0	31.9 2/
Woods (Freedom)	(S)	2	37.4	34.8	30.5	32.4	34.7	33.3	35.3	31.5	27.1	50.7 1/
Woods (Alva)	(0)	1	--	37.0	31.8	33.9	22.4	36.3	33.4	34.1	36.8	38.8
Woods (Dacoma)	(0)	1	--	6.3	3.9	5.1	3.3	5.0	6.6	6.1	2.7	6.7
Woodward (Mutual)	(0)	2	--	17.2	16.9	16.7	17.7	16.3	17.2	18.0	15.9	16.7
Woodward (Mooreland)	(0)	2	--	15.0	16.5	14.8	14.0	14.8	15.5	16.5	16.0	17.0
19 Tests, 8 Loc. Av.			--	22.9	22.3	21.9	20.8	21.0	20.9	21.1	20.4	24.7 13/
Compared with Concho in the same tests			26.7	25.1	24.7	24.2	23.5	22.9	22.4	22.4	21.9	

S = Supervised Tests. 0 = Observational Tests.
1/, 2/, 3/, etc. = The number of times a variety was grown in a location or area.
13/ = Kiowa yielded 24.7 bushels in 13 tests compared to 24.1 for Westar in the same 13 tests. In the same 7 tests Kiowa yielded 29.8 bushels compared to 30.7 for Concho.

TABLE II. --Average Yields of 11 Varieties of Hard Red Winter Wheat Grown in the Oklahoma State-Wide Small Grain Test Plots; Southwestern Oklahoma, 1950-1953.

County & Location		No. Yrs. Grn.	Con-cho	Wich-ita	Tri-umph	Westar	Ponca	Paw-nee	Coman-che	Chey-enne	Ten-marq	Kiowa	Qua-nah
Beckham (Elk City)	(S)	1	5.9	7.0	9.0	4.6	5.1	4.7	4.4	4.3	4.4	5.7	4.6
Blaine (Watonga)	(S)	2	31.2	30.1	28.4	30.0	29.2	27.7	27.8	24.4	24.0	43.3 1/	--
Caddo (Hinton)	(S)	3	25.2	23.6	21.8	24.4	22.4	21.5	21.4	22.8	19.6	25.0 2/	18.7
Grady (Chickasha)	(S)	2	24.1	23.8	28.1	19.2	19.6	19.2	19.2	9.2	16.0	16.6	14.6
Jackson (Altus)	(S)	2	17.4	16.1	12.2	17.9	13.8	15.1	16.8	15.4	14.8	15.5 1/	9.1 1/
Kiowa (Hobart)	(S)	2	7.3	9.6	7.3	6.9	6.8	5.1	6.4	5.1	6.1	7.5	6.6
Washita (Rocky)	(S)	4	35.2	31.6	28.8	28.6	27.1	28.8	25.4	27.7	24.6	38.7 2/	28.3 3/
Blaine (Geary)	(0)	1	--	33.9	33.9	41.3	40.0	36.3	37.4	37.2	38.0	37.7	--
Caddo (Cyril)	(0)	2	--	19.8	18.7	22.5	17.6	23.5	24.8	22.5	18.1	26.1 1/	23.1 1/
Canadian (Yukon)	(0)	1	--	9.7	10.2	9.7	10.8	11.0	10.5	12.0	9.7	--	--
Comanche (Lawton)	(0)	1	--	11.4	11.1	15.5	12.0	11.8	9.7	13.6	12.1	12.1	9.8
Comanche (Chattanooga)	(0)	1	--	29.6	34.5	35.9	33.4	31.5	37.3	31.0	30.6	40.5	35.3
Comanche (Indiahoma)	(0)	1	--	13.5	15.5	16.5	18.7	13.3	16.3	17.8	12.3	--	--
Custer (Clinton)	(0)	2	--	17.8	14.9	14.9	20.0	20.7	17.8	14.2	15.3	16.2	14.1
Kingfisher (Okarche)	(0)	1	--	25.2	19.4	22.9	19.3	25.3	25.6	26.4	19.2	--	--
Kingfisher (Cashion)	(0)	1	--	34.4	38.7	37.2	25.3	37.8	34.2	27.3	34.4	39.7	--
Tillman (Grandfield)	(0)	2	--	40.5	46.3	41.8	38.1	36.8	39.5	37.0	31.9	38.9	36.9
Washita (P. School)	(0)	1	--	30.6	30.4	34.2	29.8	33.0	28.8	30.7	26.6	--	--
30 Tests, 18 Loc. Average			--	23.6	23.1	23.7	22.0	22.7	22.5	21.2	20.7	25.3 (20)	19.3 (19)
Compared with Concho for the same tests			23.9	22.7	21.3	21.2	19.9	19.9	19.4	18.2	17.8		

S = Supervised Tests. 0 = Observational Tests.

1/, 2/, 3/, etc. = The number of times a variety was grown in a location or area.

(20) = Kiowa yielded 25.3 bushels in 20 tests, compared to 25.6 bushels for Westar in the same 20 tests. In the same 13 tests Kiowa yielded 21.9 bushels, compared to 23.7 for Concho.

(19) = Quanah yielded 19.3 bushels in 19 tests, compared to 22.8 bushels for Westar in the same 19 tests. In the same 12 tests Quanah yielded 16.4 bushels, compared to 23.3 bushels for Concho.

WHEAT
Eastern Oklahoma

TABLE III. --Average Yields of 9 Varieties of Hard Red Winter Wheat and 1 Soft Red Winter Wheat Grown in the State-Wide Small Grain Test Plots; Eastern Oklahoma, 1950-1953.

County & Location		No. Yrs. Grn.	Concho	Wichita	Comanche	Ponca	Quanah	Triumph	Westar	Pawnee	Clarkan	Kiowa
Garvin (Stratford)	(S)	4	38.7 3/	34.6	31.3	31.5	32.7 3/	26.2	29.7	27.9	24.7	36.8 2/
Hughes (Holdenville)	(S)	2	28.2	28.3	27.6	28.5	29.1	28.5	25.1	25.7	22.1	27.7
Johnston (Tishomingo)	(0)	2	--	28.3	30.1	27.0	17.8 1/	26.2	25.3	21.0	22.7	--
LeFlore (Heavener)	(S)	3	24.2 2/	19.5	21.6	22.8	18.7 2/	17.9	16.0	17.1	21.2	21.4 1/
Muskogee (Beland & Muskogee)	(S)	3	21.9 2/	23.8	27.0	27.6	20.2 2/	25.2	25.6	22.2	23.1	20.2 2/
Muskogee (Muskogee)	(0)	2	--	14.1	20.1	13.6	12.2	16.0	17.7	16.1	15.3	13.2 1/
Ottawa (Miami)	(0)	2	--	20.0	22.9	19.8	21.9 1/	19.6	20.8	17.8	22.1	23.2 1/
Rogers (Inola)	(S)	1	--	28.0	32.8	30.3	--	24.5	29.3	27.8	26.0	--
Wagoner (Broken Arrow)	(S)	1	11.8	21.1	13.4	9.6	8.5	10.4	12.7	10.2	9.0	11.4
20 Tests, 9 Loc. Av.			--	24.5	25.9	25.2	21.9 14/	22.5	23.2	21.4	21.6	23.8 10/
Compared with Concho for same tests			27.6	27.4	26.8	26.5	24.3	23.9	23.8	23.2	21.8	

S = Supervised Tests. 0 = Observational Tests.
1/, 2/, 3/, etc. = The number of times a variety was grown in a location or area.
14/ = Quanah yielded 21.9 bushels in 14 tests compared to 25.8 bushels for Comanche in the same 14 tests.
10/ = Kiowa yielded 23.8 bushels in 10 tests compared to 25.4 bushels for Comanche in the same 10 tests.

OATS (Winter)
North and Northwestern Oklahoma

TABLE IV.--Average Yields of 7 Varieties of Fall-Sown Oats Grown in the Oklahoma State-Wide Small Grain Test Plots; North and Northwestern Oklahoma, 1950-1953.

County & Location		No. Yrs. Grn.	Wintok	Tennex	Traveler	Stanton Str. 1	Forkedeer	C.I. 5106	C.I. 6570
Blaine (Okeene)	(S)	3	33.9	42.7	29.1	26.4	51.7 2/	37.3	39.0 1/
Custer (Thomas)	(S)	2	51.7	52.9	56.7	53.9	48.3	60.6	46.4
Kay (Ponca City)	(S)	3	65.5	70.5	46.3	48.2	76.3 2/	72.6	64.1 2/
Ottawa (Miami)	(O)	2	39.4	40.1	41.3	46.4	49.1 1/	--	--
Rogers (Inola)	(S)	1	72.0	69.8	69.3	70.3	--	75.6	--
Woods (Freedom)	(S)	2	57.8	57.4	57.7	55.6	55.4	59.7	92.1 1/
Woods (Alva)	(O)	1	88.2	94.9	88.7	103.3	97.3	--	--
14 Test Average			54.0	57.5	49.6	50.7	61.0 10/	58.7 11/	58.7 6/
Compared with Wintok and Tennex for the same tests						(Wintok (Tennex	56.2 10/ 70.4 10/	53.5 11/ 57.3 11/	65.5 6/ 69.8 6/

S = Supervised Tests. O = Observational Tests. (See Okla. Agr. Expt. Sta. Bul. No. B-366)

1/, 2/, etc. = The number of times a variety was grown in a location or area.

OATS (Winter)
Southwestern Oklahoma

TABLE V.--Average Yields of 8 Varieties of Fall-Sown Oats Grown in the Oklahoma State-Wide Small Grain Test Plots; Southwestern Oklahoma, 1950-1953.

County & Location		No. Yrs. Grn.	Wintok	Tennex	Traveler	Stanton Str. 1	Forkedeer	LeConte	C.I. 5106	Mustang
Blaine (Watonga)	(S)	2	50.8	55.7	54.3	57.2	99.0 1/	87.2 1/	67.0	15.0 1/
Blaine (Geary)	(0)	1	79.3	90.0	82.2	70.7	88.5	--	--	--
Caddo (Hinton)	(S)	2	53.9	53.3	54.2	63.7	56.9	57.2	55.2	--
Caddo (Cyril)	(0)	1	90.8	114.4	104.7	85.0	101.5	94.9	--	--
Canadian (Yukon)	(0)	1	15.8	18.6	15.6	18.6	--	--	--	--
Comanche (Lawton)	(0)	1	26.4	27.4	25.3	25.5	27.8	27.9	--	--
Grady (Chickasha)	(S)	2	28.2	39.5	31.2	39.5	39.5	42.5	56.9	--
Jackson (Blair & Altus)	(S)	2	37.6	48.4	41.4	43.4	37.3 1/	34.5 1/	36.8	35.4 1/
Kiowa (Hobart)	(S)	1	8.4	6.9	16.9	10.1	9.9	9.6	10.1	--
Tillman (Grandfield)	(0)	3	50.1	52.4	40.1	46.8	46.3 2/	43.8 2/	--	31.6 2/
Washita (Rocky)	(S)	3	53.0	59.8	55.6	58.3	49.9 2/	56.6 2/	50.2	58.3 1/
19 Tests, 11 Loc. Avrg.			46.1	52.0	47.0	49.1	57.8 14/	50.3 13/	49.4 12/	34.4 5/
Compared with Tennex and Stanton for the same tests.							(Tennex 56.9 14/	54.4 13/	48.3 12/	41.8 5/
							(Stanton 53.3 14/	52.0 13/	49.4 12/	40.5 5/

1/, 2/, 3/, etc. = The number of times a variety was grown in a location or area.
S = Supervised tests. 0 = Observational tests.

OATS (Winter)
Eastern Oklahoma

TABLE VI. --Average Yields of 14 Varieties of Fall-Sown Oats Grown in the Oklahoma State-Wide Small Grain Test Plots; Eastern Oklahoma, 1950-1953.

County & Location		No. Yrs. Grn.	Win-tok	Ten-nex	Travel-er	Stan-Str. 1	Forke-deer	DeSoto	C.I. 5106	LeConte	Mus-tang	Atlan-tic	Coy	Arling-ton	Tagg-art	Arkwin
Garvin (Stratford)	(S)	4	49.2	60.6	47.9	42.3	75.4 3/	43.4	49.8	70.3 3/	65.3 3/	60.1 3/	64.7 3/	70.8 3/	47.0 3/	58.5 1/
Hughes (Holdenville)	(S)	2	75.6	75.5	80.5	84.7	78.1	94.0	76.6	75.5	85.2 1/	70.3 1/	58.3 1/	65.8 1/	56.6 1/	57.2 1/
Johnston (Murray Jr. C)	(0)	1	49.5	56.6	60.8	56.1	--	56.6	--	--	--	--	--	--	--	--
Le Flore (Heavener)	(S)	3	38.3	44.3	42.6	43.8	54.6 2/	43.4	29.0	73.1 1/	--	--	--	--	--	--
Muskogee (Beland & Muskogee)	(S)	3	69.5	75.5	85.1	80.0	75.2 2/	76.4	71.1	63.8 2/	79.0 1/	31.6 1/	66.0 1/	76.2 1/	49.5 1/	66.6 1/
Muskogee (Muskogee)	(0)	1	15.1	30.6	20.3	14.6	28.7	14.8	--	--	--	--	--	--	--	--
Wagoner (Broken Arrow)	(S)	1	35.6	32.6	36.8	37.3	41.1	30.9	39.0	41.6	39.0	28.7	22.7	15.9	11.6	30.2
15 Test Average			51.4	58.2	56.9	54.5	64.7 11/	54.9 15/	53.2 13/	67.1 9/	66.5 6/	60.1 6/	56.9 6/	61.7 6/	43.1 6/	53.1 4/
Compared with Tennex and Traveler for the same tests					(Tennex		59.0	58.2	60.4	64.9	62.7	62.7	62.7	62.7	62.7	54.0
					(Traveler		57.8	56.9	59.4	65.2	60.1	60.1	60.1	60.1	60.1	61.3

S = Supervised Tests. 0 = Observational Tests.
1/, 2/, 3/, etc. = The number of times a variety was grown in a location or area.

TABLE VII. --Average Yields of 20 Varieties of Spring-Sown Oats Grown in the Oklahoma State-Wide Small Grain Test Plots; Oklahoma, 1951-1953.

County & Location		No. Yrs. Grown	0-200	Andrew	Neosho	Kanota	C.I. 5106	Taggart	Nemaha	New Nortex	Clinton	Wintok
Garvin (Stratford)	(S)	3	46.0	40.1	35.6	29.7	35.5	36.1	24.6	21.8	30.6	23.8
Wagoner (Wagoner & Coweta)	(S)	2	74.8	70.4	71.0	70.6	61.9	52.1	65.8	65.6	51.4	49.7
5 Test Average			57.5	52.2	49.7	46.1	46.0	42.5	41.0	39.3	38.9	34.2

County & Location		No. Yrs. Grown	0-205	Arlington	Marion	Coy	Cherokee	Clintafe	Alamo	Tennex	LeConte	Arkwin
Garvin (Stratford)	(S)	3	43.5 2/	45.8	37.0 2/	44.8	28.2 2/	29.1 2/	52.0 1/	32.1 1/	32.4 1/	31.3 1/
Wagoner (Wagoner & Coweta)	(S)	2	75.1	78.0 1/	67.4	78.0 1/	66.2	61.5 1/	97.5 1/	56.5 1/	52.3 1/	51.0 1/
5 Test Average			59.3 4/	53.8 4/	52.2 4/	48.5 4/	47.2 4/	39.9 3/	74.8 2/	44.3 2/	42.4 2/	41.2 2/
Compared to 0-200 and Andrew for the same tests	(0-200		57.8	53.7	57.8	53.7	57.8	52.7	60.8	60.8	60.8	60.8
	(Andrew		55.8	49.2	55.8	49.2	55.8	53.0	55.6	55.6	55.6	55.6

S = Supervised Tests.
1/, 2/, 3/, etc. = The number of times a variety was grown in a location or area.

BARLEY
Western Oklahoma

TABLE VIII. --Average Yields of 5 Varieties of Fall-Sown Barley Grown in the State-Wide Small Grain Test Plots; Western Oklahoma, 1949-1953.

County & Location			Harbine	Tenkow	Ward	Kearney	C.I. 9174
			North and Northwestern Oklahoma				
Blaine (Okeene)	(S)	3	35.7	43.1	36.7	39.6 1/	--
Blaine (Watonga	(S)	2	41.4	54.5	47.9	47.5 1/	--
Custer (Thomas	(S)	3	31.2	39.0	33.2	32.5 2/	11.5 1/
Kay (Ponca City)	(S)	4	26.3	33.3	33.1	35.8 2/	--
Woods (Freedom	(S)	3	39.8	47.7	42.0	45.1 1/	56.1 1/
15 Test Average			33.9	42.1	37.6	38.4 7/	33.8 2/
Kearney & C.I. 9174 compared with in the same tests.					(Harbine	45.2	32.1
					(Tenkow	53.7	33.3
					(Ward	46.7	37.8
			Southwestern Oklahoma				
Caddo (Hinton)	(S)	5	26.4	29.6	31.3	23.1 2/	33.5 1/
Caddo (Cyril)	(0)	1	41.4	48.9	39.6	--	--
Canadian (Yukon)	(0)	1	11.9	9.6	12.6	--	--
Comanche (C.S.S.A. Lawton)	(0)	1	13.4	15.8	15.9	--	--
Grady (Chickasha)	(S)	2	29.8	23.6	25.6	4.9	18.4 1/
Jackson (Blair & Altus)	(S)	2	22.0	18.0	19.6	15.3 1/	33.9 1/
Kiowa (Hobart)	(S)	2	23.0	35.1	24.7	6.4 1/	--
Tillman (Grandfield)	(0)	2	41.8	40.9	35.0	27.9 1/	--
Washita (Rocky)	(S)	3	45.9	47.1	43.7	36.5 2/	35.6 1/
19 Test Average			30.0	31.5	29.8	19.8 9/	30.4 4/
Compared to Harbine, Tenkow and Ward in the same tests.					(Harbine	31.1	32.7
					(Tenkow	31.0	28.5
					(Ward	28.2	30.9

S = Supervised Tests. 0 = Observational Tests.
1/, 2/, etc. = The number of times a variety was in a location or area.

BARLEY
Eastern Oklahoma

TABLE IX. --Average Yields of 5 Varieties of Fall-Sown Barley Grown in the State-Wide Small Grain Test Plots; Eastern Oklahoma, 1949-1953.

County & Location		No. Yrs. Grown	Harbine	Tenkow	Ward	Fayette	C.I.9174
				Eastern Oklahoma			
Garvin (Stratford)	(S)	5	41.6	46.9	40.4	37.9 4/	63.3 1/
Hughes (Holdenville)	(S)	3	46.0	61.7	50.1	43.1 2/	50.4
Johnston (Murray Jr. Coll.)	(0)	2	20.7	22.8	22.9	21.9	--
Le Flore (Heavener)	(S)	3	27.8	29.8	29.4	26.3 2/	--
Muskogee (Beland & Muskogee)	(S)	4	41.5	47.7	40.8	46.3 3/	30.4 1/
Muskogee (Muskogee)	(0)	2	12.8	18.1	14.9	15.2	--
Ottawa (N. E. A & M.)	(0)	2	30.7	35.9	34.0	33.9 1/	--
Rogers (Inola)	(S)	1	41.5	54.1	44.0	50.9	--
Wagoner (Broken Arrow)	(S)	1	12.6	14.3	10.1	13.0	14.3
23 Test Average			33.8	40.1	34.8	33.4 18/	39.6 4/
Compared with Harbine, Tenkow, and Ward in the same tests					(Harbine	31.9	44.7
					(Tenkow	37.7	34.0
					(Ward	33.4	33.7

S = Supervised Tests. 0 = Observational Tests

1/, 2/, 3/, etc. = The number of times a variety was in a location or area.