


Wheat Oats and Barley

■ in State-wide
■ Variety Tests
■
■



by
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1950 - 1954

Agricultural Experiment Station
DIVISION OF AGRICULTURE
Oklahoma A. & M. College
Stillwater

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How Varieties Are Chosen

Varieties of small grains are recommended for planting in Oklahoma on the basis of their performance during state-wide variety tests. These state-wide tests are the final step in the Experiment Station's small grain testing program.

Varieties recommended for planting must show definite superiority in yield or some other useful characteristic, and also must prove themselves adaptable to at least one section of the State.

Recommended Varieties

of

Wheat, Oats and Barley

Varietal Name		C. I. No.
	Hard Wheat	
Cheyenne		8885
Comanche		11673
Concho		12517
Pawnee		11669
Ponca		12128
Triumph		12132
Westar		12110
Wichita		11952
	Soft Wheat	
Clarkan		8858
	Fall-sown Oats	
Cimarron		5106
DeSoto*		3923
Forkeddeer		3170
Mustang**		4660
Stanton Strain 1		3855
Tennex		3169
Traveler		4206
Wintok		3424

* Southeast Oklahoma only

** South of Highway 66

Spring-sown Oats

Andrew	4170
Cherokee	5444
Kanota	839
Nemaha	4301
Neosho	4141
New Nortex	3422
Fultex	3531
Texas Red	1815

Fall-sown Barley

Harbine	7524
Tenkow	646
Ward	6007

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Wheat, Oats, and Barley

In State-wide Variety Tests 1950-54

By ROY M. OSWALT
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This bulletin reports the performance of varieties of winter wheat, oats, and barley in the Oklahoma State-wide Small Grain Variety Tests for the years 1950 to 1954, inclusive, and for spring-sown oat yields from two locations in the eastern half of the State for 1951 to 1954. Comparisons of protein content of winter wheat are also included.

Performance of crop varieties varies from year to year, therefore, average yields over a period of years and average yields for an area are given instead of a single year's results. Yields and other data are shown both by location and area.

The recommended varieties plus several new and unnamed ones, as well as a few varieties that are not commercially important in the State are grown in these tests. Each year from 20 to 30 varieties or strains are grown at each location in Oklahoma.

The Oklahoma Small Grain Testing Program

The entire small grain breeding and variety testing program in Oklahoma is a joint enterprise of the Oklahoma Agricultural Experiment Station and the Field Crops Research Branch, Agricultural Research Service, U. S. Department of Agriculture.*

The State-wide Small Grain Variety Tests reported here are the final steps in a variety program which reaches from the breeding plot where strains originate to the final recommendation of a new variety for growing on Oklahoma farms. Most varieties have previously gone through a screening process in preliminary tests conducted at a smaller number of locations within the State, usually on Experiment Station land.

* This work is supervised by A. M. Schlehuber, Professor, Small Grains, Oklahoma Agricultural Experiment Station; and Agronomist, Field Crops Research Branch, Agriculture Research Service, U. S. Department of Agriculture.

The small grain varieties and strains are also tested on a regional basis in cooperation with the experiment stations of land-grant colleges in surrounding or nearby states. Thus, Oklahoma benefits by tests conducted over a wide area in this regional program.

The State-wide Tests

The state-wide testing program includes two types of tests: "Experiment Station Supervised Tests" and "Observational Tests".

The Experiment Station Supervised Tests are seeded, harvested, and threshed by Station personnel. Land for these tests is secured by local interested persons such as, county agricultural agents, vocational agricultural instructors, and grainmen; and the land is usually prepared by the farmer on whose land the test is located.

For the Observational Tests, the Experiment Station supplies seed and plans for seeding and harvesting. The other work connected with the test is done by the cooperator in charge of the test. These tests may be used for observation alone or the cooperator may harvest the test and send the bundled material to the Experiment Station for threshing and computation of the data.

Figure 1 shows the locations of the Experiment Stations Tests, the Supervised Tests, and the Observational Tests for 1950-1955 inclusive.

For a list of test plot locations and cooperators (1950-1955), recommended varieties, variety descriptions, etc., see appendix, page 34.

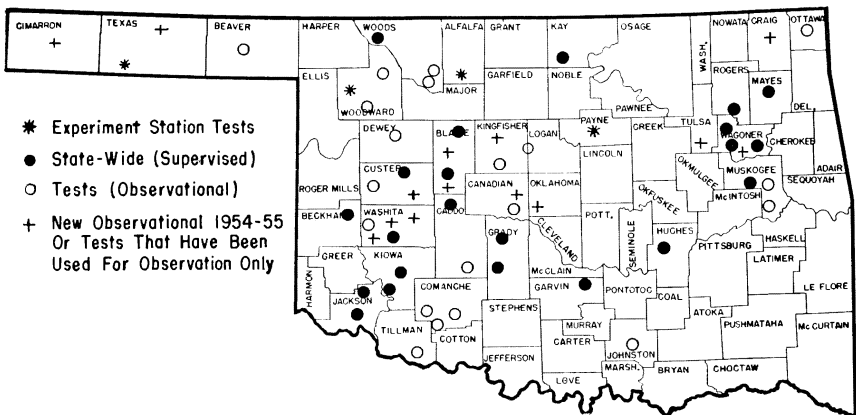


Figure 1—Location of plots in the 1950-1955 variety tests. Test plots are scattered over the State so that adaptation of new varieties can be more quickly determined. Locations vary from year to year, and the number of observational tests have increased each year.

Wheat YIELDS

Western and Central Oklahoma

Yield data for tests in western and central Oklahoma are shown in Table I. (page 16) The approximate boundaries of the different areas are shown in Figure 2.

NORTH AND NORTHWEST—Westar and Pawnee slightly outyielded Comanche, and Wichita yielded approximately the same as Comanche for 18 test years in the north and northwestern area of the State. Westar and Pawnee yielded 0.7 and 0.4 bushel more, respectively, than Comanche, while Wichita yielded 0.1 bushel less than Comanche. Wichita yielded 1.5 bushels more than Triumph in these 18 test years.

In seven test years for the north and northwest area, Concho ranked first, Wichita second, and Westar third, and they outyielded Comanche by 4.0, 0.9, and 0.6 bushels, respectively. Pawnee and Cheyenne yielded 0.1 and 0.3 bushel less than Comanche.

CENTRAL WEST—Westar and Wichita outyielded Comanche by 0.9 and 0.3 bushel per acre. Pawnee yielded 0.4 and 0.5 bushel less than Comanche, while Triumph yielded 1.0 bushel less in the 21 test years.

In 14 test years in central west Oklahoma, Concho, Westar, and Wichita outyielded Comanche by 2.0, 1.8, and 0.7 bushels, respectively. Wichita yielded 1.2 bushels more than Triumph in the 14-year comparison in the area.

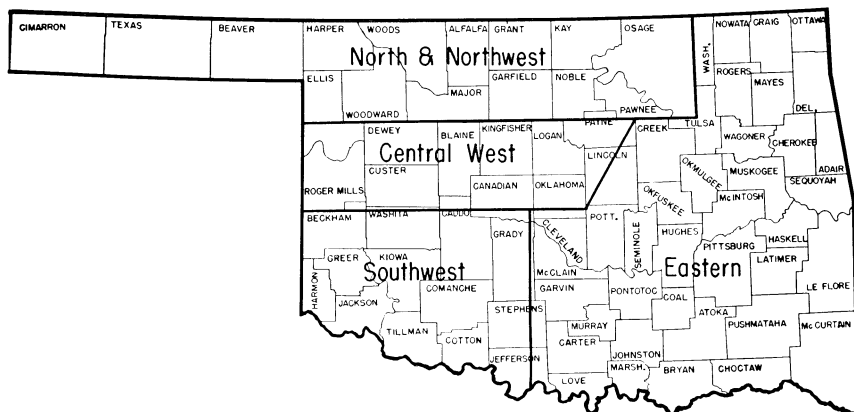


Figure 2.—This map shows the four areas into which Oklahoma is divided for reporting results of wheat variety tests.

SOUTHWEST—In the southwestern area, Westar and Triumph ranked first and second with 0.9 and 0.6 bushel more, respectively, than Comanche in 27 test years. Comanche yielded 0.2, 0.4, and 0.8 bushel more than Wichita, Pawnee, and Ponca. Triumph yielded 0.8 bushel more than Wichita in this southwestern area.

Concho ranked first in yield for 17 test years in southwestern Oklahoma, with Triumph, Wichita, Westar, and Comanche ranking second, third, fourth and fifth in that order. Concho yielded 3.1 bushels more than second place Triumph and 4.3 bushels more than Comanche in these 17 tests. Triumph yielded 1.2, Wichita 0.8, and Westar 0.7 bushels more than Comanche. Ponca and Pawnee yielded 0.1 bushel less than Comanche.

SUMMARY—The relative yields for nine varieties compared with Concho for 38 test years in the hard red winter wheat area of Oklahoma are shown at the bottom of Table I. Concho ranked first with 26.3 bushels per acre, Westar second with 23.8 bushels, Wichita third with 23.7 bushels, Comanche fourth with 22.8 bushels, Triumph fifth with 22.7 bushels, Ponca sixth with 22.6 bushels, and Pawnee seventh with 22.3 bushels. There was a spread of 2.5 bushels per acre between first and second place varieties, and only 1.5 bushels per acre spread between second and seventh place in the test average. Cheyenne and Tenmarq yielded 4.7 bushels and 5.7 bushels below Concho in these 38 test years.

Kiowa yielded 25.2 bushels per acre in 27 tests in western Oklahoma compared to 25.0 bushels for Comanche and 27.5 bushels for Concho in the same 27 tests.

Quanah yielded 19.9 bushels per acre in 21 tests in southwestern Oklahoma compared to 24.0 bushels for Comanche in the same 21 tests.

Eastern Oklahoma

In eastern Oklahoma, nine varieties of hard red winter and one soft red winter wheat were grown for all or a part of 25 test years as shown in Table II. (page 19) Of the seven varieties grown for the full 25 test years, Comanche, Ponca, and Wichita ranked first, second, and third. Comanche outyielded Clarkan (a soft variety) by 4.7 bushels per acre. Clarkan yielded less than any of the hard wheats in these 25 tests. Concho yielded 1.8 bushels more than Comanche and 2.8 bushels more than Ponca, in 15 test years. Ponca, a variety with good to excellent quality outyielded Pawnee by 2.3 bushels.

Kiowa yielded 6% less than Comanche in 15 tests, and Quanah yielded 23% less than Comanche in 18 tests in eastern Oklahoma.

PROTEIN CONTENT

Protein analysis were made on the wheat varieties and these data are shown in Tables III and IV (pages 21 and 24). The same state areas used in reporting yields are used for reporting protein content.

Western and Central Oklahoma

Table III shows the protein content data of wheat varieties grown in the tests in western and central Oklahoma for the five years, 1950-1954.

NORTH AND NORTHWEST—Comanche and Triumph tied for first with 14.22% protein, Pawnee was second with 14.21%, and Ponca third with 14.19% for the 18 test years in the north and northwest area. Comanche and Triumph were 0.9% higher than Westar, and 0.39% higher than Wichita in protein content. Kiowa was slightly below Comanche and Triumph in protein content in 15 tests. In seven tests, Concho ranked ninth in protein content with 11.92%, compared to 13.56% for Comanche and Triumph, which tied for first. Pawnee and Ponca had 0.15% and 0.12% less protein than Comanche. Wichita and Westar ranked fifth and sixth, respectively, with 12.95% and 12.83% for seven test years. Tenmarq and Cheyenne ranked seventh and eighth in protein content.

CENTRAL WEST—In 21 tests in this area, Pawnee, Cheyenne, and Ponca ranked slightly higher than Comanche in protein content, with 14.36%, 14.24%, and 14.23%, respectively, compared with 14.21% for Comanche. Triumph ranked fifth, Tenmarq sixth, Westar seventh, and Wichita eighth with 14.07%, 13.99%, 13.89%, and 13.56%, respectively. In 14 tests, Kiowa equaled Comanche in protein content. In six tests, Quanah equaled Comanche. In 14 test years compared with Concho in the same tests, there was a spread of 0.99% protein between the high variety Pawnee and the low variety Wichita. Pawnee averaged 14.54% and Wichita averaged 13.55% protein, respectively. The eighth ranking variety was Concho with 13.89% protein.

SOUTHWEST—Comanche was first with 14.62% protein for 25 test years in this area. Ponca ranked second, Triumph third, Pawnee fourth, and Tenmarq fifth with a difference of 0.43% between first and fifth

place. Cheyenne, Westar, and Wichita ranked sixth, seventh, and eighth. In 17 tests, Comanche ranked first with 15.31% protein, which is 0.97% more than ninth ranking Wichita with 14.37% protein.

SUMMARY—The five top ranking varieties in protein content for 38 test years in western Oklahoma were Comanche, Pawnee, Triumph, Ponca, and Tenmarq. Concho ranked ninth in protein content in these 38 tests, but produced more pounds of protein per acre than any other variety.

Eastern Oklahoma

Comanche with an average of 12.87% for 23 test years, as shown in Table IV, had the highest protein content in eastern Oklahoma. Ponca ranked second with 12.68% and Clarkan third with 12.53%. Pawnee ranked fourth, Triumph fifth, Wichita sixth, and Westar seventh in protein content. In 14 tests Concho ranked fifth with an average of 12.61% protein, while Comanche ranked first, Ponca second, Pawnee third, and Clarkan fourth, with averages of 13.22%, 13.10%, 12.97%, 12.84% protein, respectively.

YIELD AND PROTEIN RELATIONSHIP

The relationship between average yield and protein content of nine varieties of hard red winter wheat grown in western Oklahoma for 38 test years are shown at the bottom of Table III. Concho, Westar, and Wichita, the three highest yielding varieties for the 38 tests, ranked ninth, seventh, and sixth, respectively in average protein content. Comanche and Triumph, which ranked fourth and fifth in yield, ranked first and third in protein content. Ponca and Pawnee ranked sixth and seventh in yield and were fourth and second in protein content. Cheyenne and Tenmarq ranked eighth and ninth in yield and ranked eighth and fifth in protein content. The difference in yield per acre for the 38 test years was 5.7 bushels, while the difference in average protein content was 1.12%. The top variety in yield, Concho, was the lowest variety in protein content, but produced more pounds (213) of protein per acre than any other variety. Comanche ranked fourth in yield and first in protein content, and produced 200 pounds of protein per acre, 13 pounds less than Concho. Westar was second in yield and sixth in protein content, and produced 199 pounds of protein per acre.

In eastern Oklahoma (Table IV), Concho ranked first in yield and fifth in protein content, producing 204 pounds of protein per acre for

15 test years. Comanche which was second in yield and first in protein content, produced 199 pounds of protein per acre. Clarkan (a soft red winter wheat) ranked eighth in yield and fourth in protein content, and produced only 153 pounds of protein per acre.

The pounds of protein per acre are calculated by multiplying the yield in bushels per acre by the standard test weight (60 pounds per bushel) by the percent of protein. Example:

$$26.3 \text{ (bu. per acre)} \times 60 \text{ (lbs. per bu.)} = 1,578 \text{ lbs. of wheat.}$$

$$1,578 \times 13.49 \text{ (\% protein content)} = 213 \text{ lbs. of protein per acre.}$$

Oats

YIELDS FROM FALL-SOWN VARIETIES

Oat grain yields of fall-sown varieties tested from one to five years in 25 locations are shown in Table V (page 25). Consideration must be given to the difference in the duration which the varieties have been tested in making yield comparisons. Some varieties have been tested longer than others, therefore, if a variety has been grown in a fewer number of tests, it is ompared with Wintok on a percentage basis.

Oat areas are shown in Figure 3.

North and Northwest Oklahoma

The four oat varieties grown in the north and northwest area for the full 20 test years are Tennex, Wintok, Traveler, and Stanton Strain 1, and they have average yields of 55.2, 53.0, 50.6 and 49.5 bushels per acre,

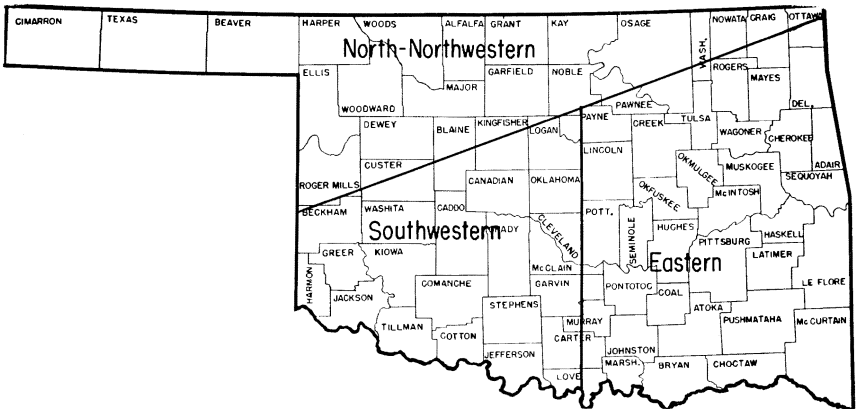


Figure 3.—This map shows the three areas into which Oklahoma is divided for reporting results of oat variety tests.

respectively. Forkeddeer grown for 15 of the 20 test years averaged 60.1 bushels, or 5% more than Wintok for the same 15 tests. In 15 test years, Tennex averaged 54.5 bushels per acre, as compared with 53.3 for Cimarron, 51.2 for Wintok, and 46.6 for both Traveler and Stanton Strain 1.

Southwest Oklahoma

Stanton Strain 1 produced 55.5 bushels per acre to rank first at 12 locations in the southwest area for 25 test years. This yield was 0.7 bushels more than Tennex, 3.2 bushels more than Wintok, and 3.7 bushels more per acre than Traveler. Forkeddeer produced 56.4 bushels per acre for 21 test years, or 2% less than Wintok for the same 21 tests. LeConte yielded 55.6 bushels, or 3% less than Wintok in 20 tests. Mustang in 9 tests, yielded 58.3 bushels, or 2% more than Wintok. In six tests in 1954, C. I. 6571 (Texas Selection 3770-7) yielded 82.9 bushels, or 8% more than Wintok for the same tests. For 18 test years, the four varieties Wintok, Tennex, Traveler, and Stanton Strain 1 can be compared directly with Cimarron as follows: Stanton Strain 1 ranked first with 58.6 bushels, Tennex second with 55.4 bushels, Cimarron third with 54.4 bushels, Wintok fourth with 54.2 bushels, and Traveler fifth with 54.0 bushels per acre. There was a difference of 4.6 bushels per acre between first and fifth place in this area.

SUMMARY—Tennex ranked first, with 55.0 bushels in north and western Oklahoma for 33 test years. Cimarron was second with 53.9 bushels, Stanton Strain 1 third with 53.2 bushels, and Wintok fourth with 52.9 bushels per acre. Traveler produced 0.7 bushel less than Wintok.

Eastern Oklahoma

In eastern Oklahoma, Tennex, Traveler, Stanton Strain 1, De Soto, and Wintok were grown at 11 locations for 22 test years. Tennex yielded 55.0 bushels per acre, or 2% more than Traveler. Stanton Strain 1 yielded 54.1 bushels and Traveler yielded 54.0 bushels. De Soto yielded 52.8 bushels, or 2% less than Traveler. The average yield for Wintok was 48.4 bushels, or 10% less than Traveler. For the 17 test years with which Cimarron can be compared, Stanton Strain 1, Tennex, and Traveler ranked first, second, and third, with a difference of only 0.4 bushel per acre as shown at the bottom of Table VI. Traveler yields exceeded De Soto by 0.7 bushels, Wintok by 6.6 bushels, and Cimarron by 8.9 bushels in these same 17 tests.

Nine other varieties grown only in a part of the 22 test years are compared with Traveler on a percentage basis for the same number of years, as shown in Table VI (page 28). Forkeddeer, grown in 17 of the 22 test years, yielded 59.6 bushels per acre, or 8% more than Traveler. Le-

Conte produced 62.4 bushels in 14 tests, or 5% more than Traveler. Mustang yielded 57.5 bushels, Arlington 56.3 bushels, Atlantic 55.8 bushels, and Coy 54.8 bushels in 11 tests. Mustang yielded 3% more than Traveler, Arlington 1% more than Traveler, Atlantic the same as Traveler, and Coy 1% less than Traveler in the same 11 tests. Arkwin yielded 3% less than Traveler in nine tests. Taggart yielded 28% less than Traveler in six tests. In 4 tests, C.I. 6571 yielded 15% more than Traveler. In order that a more direct comparison can be made between more varieties at three locations in the eastern part of Oklahoma, two different sets of averages are shown in Table VI for Garvin, Hughes, and Muskogee Counties.

YIELDS FROM SPRING-SOWN VARIETIES

Table VII (page 30) shows the average yields for spring-sown oats at two locations in eastern Oklahoma. At Stratford in northeastern Garvin County, four, three, and two year averages are shown, and in Wagoner County, three and two year averages are shown so that direct comparisons between varieties can be made. Andrew ranked first with 51.0 bushels per acre, for four test years at Stratford. Ranking second and third were 0-200 and Arlington with 50.2 and 46.6 bushels, respectively. Coy was fourth with 44.5 bushels, and Neosho fifth with 41.2 bushels. For the three-year average, 0-205 ranked first, Andrew second, 0-200 third, and Arlington fourth with 57.6, 55.4, 48.1, and 46.7 bushels per acre, respectively. For the two-year average, 0-205 ranked first with 65.2 bushels, Andrew second with 58.3 bushels, and Alamo third with 57.9 bushels per acre.

In Wagoner County, the test was grown south of Wagoner one year and north of Coweta two years. The three-year averages show 0-200 ranking first, 0-205 second, and Andrew third with 75.3, 73.8, and 72.4 bushels per acre, respectively. For two years north of Coweta, Alamo averaged 91.6 bushels, 0-205 80.9 bushels, Kanota 76.9 bushels, 0-200 76.6 bushels, and Andrew 76.5 bushels per acre. Eight of 20 varieties averaged over 70.0 bushels per acre for the two test years, and two of the eight varieties, Cimarron and Arlington, are winter oat varieties seeded in the spring.

SUMMARY—The averages for the two locations are shown for seven, six, five, and four test years so that more direct comparisons can be made between varieties for the same number of tests grown. Also, each variety is compared with Andrew on a percentage basis. Only one variety yielded more than Andrew in the seven test year average. Yields

from 0-200 were 0.7 bushel more than Andrew and the other seven varieties yielded from 7.1 to 22.5 bushels less than Andrew. In the six test years, 0-205 yielded 1.8 bushels more than Andrew, while the other 12 varieties yielded from 2.2 bushels to 22.2 bushels less than Andrew. In the five test year comparison, three years at Stratford and two years for Wagoner County, Andrew ranked first, 0-205 a close second with only 0.3 bushel difference. The third place Nemaha yielded 6.0 bushels less than Andrew. For four test years, two at Stratford and two at Coweta (1953-1954), only two of 19 varieties yielded more than Andrew. Alamo outyielded Andrew by 6.8 bushels, and 0-205 outyielded Andrew 5.1 bushels. The average date of seeding at Stratford (four years) was about February 17, and for Wagoner County (three years) about February 18.

COMPARISON OF FALL- AND SPRING-SOWN OATS

At Stratford, fall- and spring-sown oats can be compared for four years. They were grown on the same soil type and under the same climatic conditions. The highest yielding variety of the 12 fall-sown oats for four years produced 73.7 bushels per acre, and the lowest yielding variety produced 54.3 bushels. Compared with this, the highest yielding variety of the 11 spring-sown oats produced 51.0 bushels and the lowest yielding variety produced only 27.0 bushels. The grand averages were 63.2 bushels for the 12 fall-sown oats and only 39.6 bushels for the 11 spring-sown oats, 23.6 bushels in favor of the fall-sown varieties.

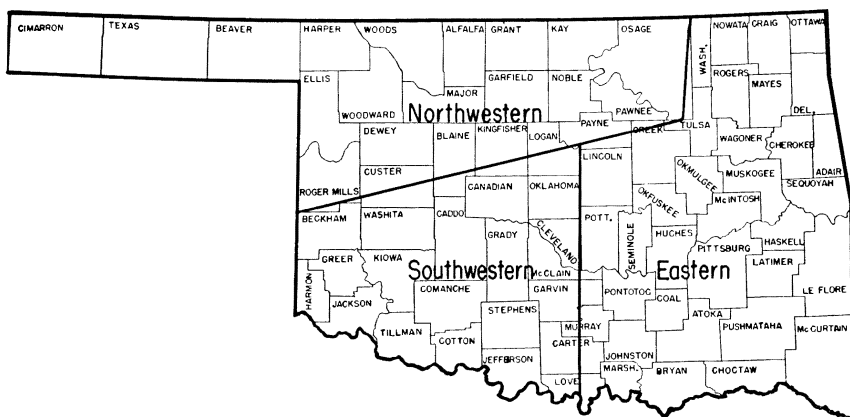


Figure 4.—Results of the barley variety tests are reported by the three areas indicated on this map.

Barley

YIELDS

Barley variety yield data are shown in Table VIII (page 32) by locations and by areas. The locations are divided into three areas, as shown in Figure 4.

North and Western Oklahoma

In the north and western area, Ward and Tenkow tied for first place with an average of 35.5 bushels per acre for 15 test years. Harbine yields were 4.5 bushels per acre less than Ward and Tenkow. Kearney yields were 19% less than Ward for 12 test years. Yields from C. I. 9174 (Oklahoma No. 1005) were 1% less than Ward for five test years.

Southwestern Oklahoma

Harbine led in average yields with 29.4 bushels per acre during the 22 test years in southwestern Oklahoma. Kearney yields were only 68% as much as Ward in 15 tests, and C. I. 9174 yielded 4% more than Ward in nine tests.

SUMMARY FOR WESTERN OKLAHOMA—For 37 test years, Ward exceeded Harbine by 1.7 bushels and Tenkow by 2.0 bushels per acre. Kearney yielded only 74% as much as Ward for 27 test years, while C.I. 9174 yielded approximately the same as Ward for 14 test years, in western Oklahoma.

Eastern Oklahoma

Fayette was grown in eastern Oklahoma instead of Kearney, as shown in Table VIII. For the 23 test years, Tenkow yielded 35.3 bushels, Ward 32.0 bushels and Harbine 31.4 bushels per acre. Fayette yielded 10% less than Ward for 18 test years, and C.I. 9174 yielded 12% more than Ward for eight test years.

Wheat Yields

Western and Central Oklahoma

Table I.—Average Yields for 11 Varieties of Hard Red Winter Wheat Grown at 29 Locations in Western and Central Oklahoma, 1950-1954; by Test Location and by Areas.

(bushels per acre)

County and Location	No. Years Grown	Cheyenne	Comanche	Pawnee	Ponca	Tenmarq	Triumph	Westar	Wichita	Concho	Kiowa	Quanah
<i>North and Northwest Oklahoma</i>												
Kay (S)* (Ponca City)	5	26.7	28.0	26.8	26.7	26.5	25.6	28.0	30.1	31.9	31.0(3)**	---
Woods (S) (Freedom)	2	34.7	32.4	35.3	33.3	31.5	27.1	34.8	30.5	37.4	50.7(1)	---
Beaver (O) (Beaver City)	1	5.7	6.6	7.5	8.9	8.1	5.5	11.7	7.9	---	8.5	---
Woods (O) (Alva)	2	19.0	25.9	25.1	24.6	23.2	24.4	27.0	19.9	---	28.4	---
Woods (O) (Decoma)	2	2.5	3.8	5.3	3.2	4.3	2.2	4.7	3.5	---	5.2	---
Woodward (O) (Mutual)	3	12.8	12.3	13.7	12.2	13.5	11.9	12.6	12.7	---	27.7	---
Woodward (O) (Mooreland)	3	13.1	13.6	14.3	13.5	14.3	13.2	13.6	14.3	---	15.2	---
Average Yield		---	---	---	---	---	---	---	---	---	---	---
18 test yrs. Percent of Comanche		18.3 94	19.4 100	19.8 102	19.0 98	19.0 98	17.8 92	20.1 104	19.3 100	---	20.2(15) 109	---
Average Yield 7 test yrs. Compared with Concho		29.0	29.3	29.2	28.6	27.9	26.6	29.9	30.2	33.3	---	---

Table I.—(continued).

County and Location	No. Years Grown	Cheyenne	Comanche	Pawnee	Ponca	Tenmarq	Triumph	Westar	Wichita	Concho	Kiowa	Quanah
<i>Central West Oklahoma</i>												
Blaine (S) (Okeene)	5	16.2	17.7	14.6	16.0	15.3	14.4	18.0	16.5	17.0	21.4(3)	---
Blaine (S) (Watonga)	2	24.4	27.8	27.7	29.2	24.0	28.4	30.0	30.1	31.2	43.3(1)	---
Caddo (S) (Hinton)	4	21.5	21.1	21.6	22.0	19.3	21.9	23.9	22.0	25.4	23.4(3)	17.5
Custer (S) (Thomas)	3	20.6	20.5	19.3	20.6	19.0	22.3	23.3	23.1	23.1	22.5(2)	---
Blaine (S) (Geary)	1	37.2	37.4	36.3	40.0	38.0	33.9	41.3	33.9	---	37.7	---
Canadian (O) (Yukon)	1	12.0	10.5	11.0	10.8	9.7	10.2	9.7	9.7	---	---	---
Custer (O) (Clinton)	2	14.2	17.8	20.7	20.0	15.3	14.9	14.9	17.8	---	16.2	14.1
Dewey (O) (Vici)	1	17.8	24.7	25.4	23.5	18.6	21.7	19.6	25.1	---	26.2	---
Kingfisher (O) (Okarche & Cashion)	2	26.8	29.9	31.6	22.3	26.8	29.1	30.1	29.8	---	37.1(1)	---
		---	---	---	---	---	---	---	---	---	---	---
Av. Yield, 21 test yrs. Percent of Comanche		20.3 93	21.8 100	21.4 98	21.3 98	19.5 89	20.8 95	22.7 104	22.1 101	---	25.4(14) 104	16.3(6) 82
Av. Yield, 14 test yrs. Compared with Concho		19.8	20.7	19.5	20.6	18.5	20.2	22.5	21.4	22.7	---	---
<i>Southwest Oklahoma</i>												
Beckham (S) (Elk City)	2	19.5	18.7	17.2	16.8	16.6	18.5	17.8	16.9	21.3	18.9	15.0

Table I.—(continued).

County and Location	No. Years Grown	Cheyenne	Comanche	Pawnee	Ponca	Tenmarq	Triumph	Westar	Wichita	Concho	Kiowa	Quannah
Grady (S) (Chickasha)	3	16.2	26.7	25.0	27.4	21.8	30.0	27.6	26.1	33.3	23.6	20.6
Jackson (S) (Blair & Altus)	3	18.2	20.0	18.8	18.1	16.2	17.1	20.6	18.0	21.2	21.7(2)	11.4(2)
Kiowa (S) (Hobart & School District No. 8)	4	8.9	12.2	12.0	12.5	9.4	14.5	14.3	13.7	13.0	12.4	8.0(3)
Washita (S) (Rocky)	5	32.2	29.1	31.5	30.2	28.6	31.4	29.4	33.5	37.6	37.7(3)	28.7(4)
Caddo (O) (Cyril)	3	21.9	24.5	24.1	17.8	19.2	19.6	23.3	20.4	---	23.9(2)	16.5(2)
Comanche (O) (Lawton Chattanooga & Indianhomia)	3	20.8	21.1	18.9	21.4	18.3	20.4	22.6	18.2	---	26.3(2)	22.6(2)
Tillman (O) (Grandfield)	3	14.0	29.9	27.8	28.5	24.6	33.5	31.2	29.1	---	29.9	29.0
Washita (O) (Port School)	1	30.7	28.8	33.0	29.8	26.6	30.4	34.2	30.6	---	---	---
		---	---	---	---	---	---	---	---	---	---	---
Av. Yield, 27 test yrs. Percent of Comanche		20.0 86	23.2 100	22.8 98	22.4 97	20.0 86	23.8 103	24.1 104	23.0 99	---	24.0(21) 98	19.9(21) 83
Av. Yield, 17 test yrs. Compared with Concho		19.9	21.9	21.8	21.8	19.3	23.1	22.6	22.8	26.2	---	---
<i>Western and Central Oklahoma</i>												
Av. Yield, 38 test yrs. in West Okla.	Rank	21.6 8	22.8 4	22.3 7	22.6 6	20.6 9	22.7 5	23.8 2	23.7 3	26.3 1	25.2(27)	---

* (S) Experiment Station Supervised tests; (O) Observation tests.

** The number in parentheses equals number of test years.

Wheat Yields

Eastern Oklahoma

Table II.—Average Yield for Nine Varieties of Hard Red Winter Wheat and for One Soft Red Winter Wheat Grown At 11 Locations in Eastern Oklahoma, 1950-1954; by Test Locations.

(bushels per acre)

County and Location	No. Years Grown	Clarkan*	Co-manche	Pawnee	Ponca	Triumph	Wes-tar	Wich-ita	Concho	Quannah	Kiowa
Garvin (S)** (Stratford)	5	24.5	31.4	28.1	30.2	24.3	30.9	32.5	37.8(4)	†30.3(4)	33.8(3)
Hughes (S) (Holdenville)	3	18.6	24.9	21.8	24.2	22.6	22.1	23.7	25.8	24.7	24.5
LeFlore (S) (Heavener)	3	21.9	21.6	17.1	22.8	18.0	16.0	19.5	24.2(2)	18.7(2)	21.4(1)
Muskogee (S) (Muskogee) (Bacone College)	4	23.5	26.4	22.3	26.3	25.9	25.3	24.9	24.5(3)	19.2(3)	22.3(3)
Mayer (S) (Adair)	1	7.3	10.3	9.6	11.1	7.2	11.5	11.3	14.6	8.6	9.4
Wagoner (S) (Broken Arrow)	1	9.0	13.4	10.2	9.6	10.4	12.7	12.1	11.8	8.5	11.4
Muskogee (O) (Warner) (Connors Jr. College)	1	12.3	22.3	19.9	22.4	23.9	24.0	21.3	26.2	---	20.8
Johnston (O) (Tishomingo) (Murray Jr. College)	2	22.7	30.1	20.9	32.0	26.2	25.3	28.3	---	17.8(1)	---

Wheat, Oats and Barley

Table II.—(continued).

County and Location	No. Years Grown	Clarkan	Co-manche	Paw-nee	Ponca	Tri-umph	Wes-tar	Wich-ita	Concho	Quanah	Kiowa
Muskogee (O) (Muskogee)	2	15.3	20.1	16.1	13.6	16.0	17.7	14.1	---	12.2	13.2(1)
Rogers (S) (Inola)	1	26.0	32.8	27.8	30.6	24.5	29.3	28.0	---	---	---
Ottawa (O) (Miami) (N.E. Oklahoma Jr. College)	2	22.1	22.9	17.8	19.8	19.6	20.8	20.0	---	21.9(1)	23.2(1)
Av. Yield, 25 test yrs. Percent of Comanche		---	---	---	---	---	---	---	---	---	---
		20.4	25.1	20.9	24.1	21.5	23.0	23.6	---	20.6(18)	22.7(15)
		81	100	83	96	86	92	94	---	77	94
Av. Yield, 15 test yrs. Compared with Concho Rank		19.9	25.1	21.8	24.1	21.7	23.3	24.9	26.9	---	---
		8	2	6	4	7	5	3	1	---	---

* Soft wheat.

** (S) Experiment Station Supervised tests; (O) Observational tests.

† Number in parentheses equals the number of test years.

Wheat Protein

WESTERN AND CENTRAL OKLAHOMA

Table III.—Average Protein Content for 11 Varieties of Hard Red Winter Wheat Grown at 29 Locations in Western and Central Oklahoma, 1950-1954; by Test Locations and by Areas.

(percent protein)

County and Location	No. Years Grown	Cheyenne	Comanche	Pawnee	Ponca	Tennmarq	Triumph	Westar	Wichita	Concho	Kiowa	Quanah
<i>North and Northwestern Oklahoma</i>												
Kay (S)* (Ponca City)	5	12.38	12.52	12.40	12.39	12.26	12.53	12.00	11.98	11.38	11.83(3)**	----
Woods (S) (Freedom)	2	15.00	16.18	15.93	15.73	15.35	16.13	14.90	15.38	13.28	15.00(1)	----
Beaver (O) (Beaver City)	1	18.50	17.41	19.19	18.28	18.83	18.24	19.01	18.06	----	18.28	----
Woods (O) (Alva)	2	13.77	14.74	14.30	14.68	14.18	13.99	13.86	14.16	----	14.66	----
Woods (O) (Decoma)	2	16.42	15.79	15.64	15.58	15.25	15.28	15.11	15.99	----	15.33	----
Woodward (O) (Mutual)	3	11.83	12.38	12.38	12.51	12.22	12.21	12.64	11.50	----	12.37	----
Woodward (O) (Mooreland)	3	15.02	15.14	15.28	15.21	15.29	15.89	14.20	15.15	----	14.78	----
Av. for 18 test yrs. Percent of Comanche		13.97 98.2	14.22 100.0	14.21 99.9	14.19 99.8	14.07 99.0	14.22 100.0	14.13 99.4	13.83 97.3	----	14.01(15) 99.3	----
Av. Compared with Concho 7 test yrs.		13.13	13.56	13.41	13.34	13.29	13.56	12.83	12.95	11.92	----	----

Table III.—(continued).

County and Location	No. Years Grown	Cheyenne	Comanche	Pawnee	Ponca	Tenmarq	Triumph	Westar	Wichita	Concho	Kiowa	Quanah
<i>Central West Oklahoma</i>												
Blaine (S) (Okeene)	5	14.78	15.82	15.66	15.21	15.00	16.14	14.87	14.79	14.97	14.92(3)	----
Blaine (S) (Watonga)	2	14.18	13.95	14.15	14.90	14.03	13.73	13.55	13.28	13.20	15.70(1)	----
Caddo (S) (Hinton)	4	12.44	11.75	12.73	12.30	12.10	12.03	11.91	11.55	12.03	11.88(3)	13.01
Custer (S) (Thomas)	3	15.65	15.26	15.35	15.07	15.56	14.38	15.54	14.32	15.03	15.61(2)	----
Blaine (O) (Geary)	1	13.30	14.00	13.50	14.00	13.20	13.10	12.90	14.00	----	13.80	----
Canadian (O) (Yukon)	1	12.25	12.85	12.30	12.10	12.65	12.10	12.50	11.80	----	----	----
Custer (O) (Clinton)	2	15.03	15.64	15.94	15.43	15.30	14.46	15.73	14.14	----	15.80	15.54
Dewey (O) (Vici)	1	14.14	13.76	13.19	12.90	13.73	14.87	13.11	13.67	----	13.67	----
Kingfisher (O) (Okarche & Cashion)	2	15.20	13.35	13.55	14.33	12.75	13.50	13.02	13.63	----	13.10(1)	----
Av. 21 test yrs. Percent of Comanche		----	----	----	----	----	----	----	----	----	----	----
		14.24	14.21	14.36	14.23	13.99	14.07	13.89	13.56	----	14.25(14)	13.86(6)
Av. 14 test yrs. compared with Concho		100.2	100.0	101.1	100.1	98.5	99.0	97.7	95.4	----	100.0	100.0
		14.21	14.27	14.54	14.31	14.15	14.25	13.98	13.55	13.89	----	----
<i>Southwest Oklahoma</i>												
Beckham (S) (Elk City)	2	16.06	16.47	16.99	16.88	16.68	16.67	16.44	15.68	16.32	16.92	17.12
Grady (S) (Chickasha)	3	16.39	17.28	16.51	16.83	16.02	16.31	15.76	16.29	16.19	16.74	17.40

Table III.—(continued).

County and Location	No. Years Grown	Cheyenne	Comanche	Pawnee	Ponca	Tenmarq	Triumph	Westar	Wichita	Concho	Kiowa	Quanah
Jackson (S) (Blair & Altus)	3	11.09	11.59	11.06	10.92	11.44	11.35	10.63	11.22	10.26	10.83(2)	12.13(2)
Kiowa (S) (Hobart & School Dist. No. 8)	4	14.66	15.58	15.30	15.61	15.60	15.62	15.06	15.18	15.45	15.17	16.75(3)
Washita (S) (Rocky)	5	14.17	15.68	14.78	14.82	14.67	15.12	14.51	13.84	14.85	15.94(3)	15.37(4)
Caddo (O) (Cyril)	2	9.98	9.96	10.01	10.30	10.02	10.15	9.75	9.91	----	10.10	11.56
Comanche (O) (Lawton & Chattanooga)	2	12.55	13.15	13.05	13.50	13.05	12.70	12.85	12.45	----	12.75	14.05
Tillman (O) (Grandfield)	3	14.00(2)	13.60	15.20	15.50	15.09	14.68	14.35	13.95	----	14.87	16.28
Washita (O) (Port School)	1	11.30	12.20	11.75	12.75	11.80	13.35	11.80	12.40	----	----	----
Av. 25 test yrs. Percent of Comanche		----- 14.06(24) 96.2	----- 14.62 100.0	----- 14.21 97.2	----- 14.41 98.6	----- 14.19 97.1	----- 14.30 97.8	----- 13.80 94.4	----- 13.71 93.8	----- ----- -----	----- 14.50(21) 94.0	----- 15.36(21) 104.0
Av. 17 test yrs. Compared with Concho		14.36	15.31	14.81	14.91	14.79	14.96	14.40	14.34	14.59	-----	-----
Av Protein Content, 38 test yrs.		13.74	14.61	14.45	14.40	14.28	14.44	13.96	13.79	13.49	-----	-----
Western Okla. Rank		8	1	2	4	5	3	6	7	9	-----	-----
Av. Yield 38 test yrs.		21.8	22.8	22.3	22.6	20.6	22.7	23.8	23.7	26.3	-----	-----
Lbs. Protein Per Acre Rank		180 9	200 2	193 8	195 7	196 5	197 4	199 3	196 5	213 1	----- -----	----- -----

* (S) = Experiment Station supervised tests; (O) = Observational tests.

** Number in parentheses equals the number of test years.

TABLE IV.—AVERAGE PROTEIN CONTENT FOR NINE VARIETIES OF HARD RED WINTER WHEAT and for One Soft Red Winter Wheat Grown at Ten Locations in Eastern Oklahoma, 1950-1954; by Locations.

(percent protein)

County and Location	No. Years Grown	Clarkan*	Co. manche	Paw-nee	Ponca	Tri-umph	Wes-tar	Wichita	Cencho	Quanah	Kiowa
Garvin (S)** (Stratford)	5	13.45	14.21	13.50	14.22	13.62	12.85	12.79	14.26(4)†	15.88(4)	15.07(3)
Hughes (S) (Holdenville)	3	15.38	15.72	14.99	15.42	13.77	14.70	13.69	14.50	16.28	15.29
LeFlore (S) (Heavener)	3	9.43	9.88	9.98	9.80	9.70	9.55	9.32	9.65(2)	11.13(2)	11.40(1)
Mayes (S) (Adair)	1	11.30	11.04	11.58	11.58	12.68	10.77	11.73	11.97	12.58	11.75
Muskogee (S) (Beland & Muskogee (Bacone College)	4	11.35	11.32	11.27	11.01	10.75	10.55	10.88	10.44(3)	11.67(3)	10.98(3)
Wagoner (O) (Broken Arrow)	1	14.40	14.01	13.99	13.61	13.54	13.15	14.29	13.48	14.43	14.99
Johnston (O) (Tishomingo (Murray Jr. College)	2	13.08	13.93	12.68	13.78	12.55	12.33	12.30	-----	14.50(1)	-----
Muskogee (O) (Muskogee)	2	13.09	13.12	13.03	12.63	12.76	12.71	13.14	-----	13.82	10.67(1)
Ottawa (O) (Miami, N.E. Okla. (Jr. College)	1	11.00	10.80	11.25	11.00	11.30	10.50	10.70	-----	-----	-----
Rogers (S) (Inola)	1	12.10	12.85	11.90	11.90	12.75	11.60	11.85	-----	-----	-----
Av. for 23 test yrs. Percent of Comanche		12.53	12.87	12.51	12.68	12.28	11.97	12.04	-----	13.98(17)	13.30(13)
Av. for 14 test yrs. Rank		97.4	100.0	97.5	98.5	95.4	93.0	93.6	-----	103.0	98
Av. Yield, 15 test yrs. Lbs. Protein Per Acre Rank		12.84	13.22	12.97	13.10	12.59	12.31	12.33	12.61	-----	-----
		4	1	3	2	6	8	7	5	-----	-----
		19.9	25.1	21.8	24.1	21.7	23.3	24.9	26.9	-----	-----
		153	199	170	189	164	172	184	204	-----	-----
		8	2	6	3	7	5	4	1	-----	-----

* Soft Wheat.

** (S) Experiment Station supervised tests; (O) Observational tests.

† Number in parentheses equals the number of test years.

Oat Yields

WESTERN OKLAHOMA

Table V.—Average Grain Yields for Nine Varieties of Fall-sown Oats, Tested at 22 Locations in Oklahoma, 1950-1954; By Test Locations and by Areas.

(bushels per acre)

County and Location	No. Years Grown	Wintok	Tennex	Traveler	Stanton Strain 1	Cimarron	Forkeddeer	LeConte	Mustang	C.I. 6571
<i>North and Northwestern Oklahoma</i>										
Blaine (S)* (Okeene)	4	37.6	41.4	34.5	32.2	36.9	49.2(3)** 114%†	----	----	----
Custer (S) (Thomas)	3	40.8	42.7	45.1	43.0	46.3	41.0	----	----	----
Kay (S) (Ponca City)	4	66.0	70.4	48.6	51.7	68.6	73.0(3) 109%	----	----	----
Mayes (S) (Adair)	1	45.1	57.3	46.6	53.2	43.4	54.8	----	----	----
Rogers (S) (Inola)	1	72.0	69.8	69.8	70.3	75.6	----	----	----	----
Woods (S) (Freedom)	2	57.8	57.4	57.7	55.6	59.7	110.8(1) 102%	----	----	----
Dewey (O) (Vici)	1	81.1	72.6	104.3	64.8	----	64.5	----	----	----
Ottawa (O) (Miami; N. E. Okla. Jr. Col.)	2	32.8	32.2	31.3	30.9	----	33.7(1) 103%	----	----	----
Woods (O) (Alva)	1	88.2	94.9	88.7	103.3	----	97.3	----	----	----
Woods (O) (Decoma)	1	44.4	39.4	37.1	31.0	----	35.2	----	----	----

Table V.—(continued)

County and Location	No. Years Grown	Wintok	Tennex	Traveler	Stanton Strain 1	Cimarron	Forkedeer	LeConte	Mustang	C.I. 6571
Av. Yield 20 test yrs. Percent of Wintok		53.0 100	55.2 104	50.6 95	49.5 93	---- ----	60.1(15) 105	---- ----	---- ----	---- ----
Av. Yield 15 test yrs. Compared with Cimarron Percent of Wintok		51.2 100	54.5 106	46.6 91	46.6 91	53.3 104	---- ----	---- ----	---- ----	---- ----
<i>Southwestern Oklahoma</i>										
Beckham (S) (Elk City)	1	60.4	41.8	58.9	63.5	50.7	63.0	44.9	55.4	73.6
Blaine (S) (Watonga)	2	53.8	55.7	54.3	57.2	67.0	99.0(1) 110%	87.2(1) 97%	---	---
Caddo (S) (Hinton)	3	56.9	55.0	57.8	61.4	55.6	56.6	56.2	61.6(1) 98%	58.4(1) 93%
Grady (S) (Chickasha)	3	42.5	48.5	47.8	51.7	59.9	46.8	48.8	88.8(1) 125%	93.9(1) 132%
Jackson (S) (Blair & Altus)	3	53.0	57.0	46.1	52.5	40.9	56.8(2) 96%	51.9(2) 85%	51.4(2) 84%	87.8(1) 105%
Kiowa (S) (Hobart)	2	41.9	40.5	34.9	41.7	30.6	40.1	39.6	71.1(1) 94%	58.4(1) 77%
Washita (S) (Rocky)	4	66.7	70.5	70.0	74.2	66.2	59.7(3) 86%	69.5(3) 100%	115.1(1) 107%	125.2(1) 116%
Caddo (O) (Cyril)	1	90.8	114.4	104.7	85.0	---	101.5	94.9	---	---
Canadian (O) (Yukon)	1	15.8	18.6	15.6	18.6	---	---	---	---	---
Comanche (O) (Lawton; Cameron J. C.)	1	26.4	27.4	25.3	25.5	---	27.8	27.9	---	---
Blaine (O) (Geary)	1	79.3	90.0	82.2	70.7	---	88.5	---	---	---

Table V.—(continued)

County and Location	No. Years Grown	Wintok	Tennex	Traveler	Stanton Strain 1	Cimarron	Forkedeer	LeConte	Mustang	C.I. 6571
Tillman (O) (Grandfield)	4	49.4	52.7	44.2	51.1	---	51.2(3) 92%	50.1(3) 90%	55.3(2) 133%	---
		---	---	---	---	---	---	---	---	---
Av. Yield, 25 test yrs. Percent of Wintok		52.3 100	54.8 105	51.8 99	55.5 106	---	56.4(21) 98	55.6(20) 97	58.3(9) 102	82.9(6) 108
Av. Yield 18 test yrs. Percent of Wintok		54.2 100	55.4 102	54.0 100	58.6 108	54.4 100	---	---	---	---
<i>North and Western Oklahoma</i>										
Av. Yield 33 test yrs. Compared with Cimarron Percent of Wintok		52.9 100	55.0 104	50.7 96	53.2 101	53.9 102	---	---	---	---

* (S) Experiment Station Supervised tests; (O) Observational tests.

** Number in parentheses equals the number of test years.

† Percent of Wintok for the same test years.

EASTERN OKLAHOMA
Table VI.—Average Grain Yields for 15 Varieties of Fall-sown Oats Tested at Nine Locations in Eastern Oklahoma, 1950-1954; by Test Location and by Area.

(bushels per acre)

County and Location	No. Years Grown	Win-tok	Ten-nex	Trav-eler	Stan- ton Str. 1	De Soto	Cima- rron	Fork- edeer
<i>Eastern Oklahoma</i>								
Garvin (S)*	5	48.8	61.3	52.7	53.0	48.8	53.5	---
(Stratford)	4	54.8	67.2	69.5	58.8	54.3	55.2	71.5
Hughes (S)	3	56.0	62.1	67.7	72.2	77.5	62.0	65.2
(Holdenville)	2	39.7	51.5	58.1	61.2	63.9	42.1	55.1
LcFlore (S)	3	38.3	44.3	42.6	43.8	43.4	29.0	54.6(2)**
(Heavener)								
Mayer (S)	1	45.1	57.3	46.6	53.2	63.2	43.4	54.8
(Adair)								
Muskogee (S)	4	66.6	68.3	77.3	72.5	69.3	53.4	66.6(3)
(Beland & Muskogee)	2	64.8	59.0	68.6	61.8	69.0	42.8	68.2
(Bacone College)								
Wagoner (S)	1	35.6	32.6	36.8	37.3	30.9	37.1	41.1
(Broken Arrow)								
Johnston (O)	1	49.5	56.6	60.8	56.1	56.6	---	---
(Tishomingo, Murray J. C.)								
Muskogee (O)	1	15.0	30.6	20.3	14.6	14.8	---	28.7
(Muskogee)								
Muskogee (O)	1	47.3	54.0	37.1	33.0	43.1	---	49.3
(Warner, Connors J. G.)								
Ottawa (O)	2	39.4	40.1	41.3	46.4	35.1	---	49.1(1)
(Miami, N. E. Okla. J. C.)								
Av. Yield, 22 test yrs.		---	---	---	---	---	---	---
Percent of Traveler		90	102	100	100	98	---	108
Av. Yield, 17 test yrs.		51.4	58.2	58.0	58.4	57.3	49.1	---
Compared with Cimarron								
Percent of Traveler		89	100	100	101	99	85	---

Table VI.—(continued).

County and Location	No. Years Grown	Le-Conte	Mustang	Arlington	Atlantic	Coy	Arkwin	Taggart	C. I. 6571
<i>Eastern Oklahoma</i>									
Garvin (S)	5	---	---	---	---	---	---	---	---
(Stratford)	4	69.0	68.9	73.7	61.3	64.2	67.1 (2)	47.0 (3)	81.2 (1)
Hughes (S)	3	65.5	---	---	---	---	---	---	---
(Holdenville)	2	59.1	55.6	53.2	55.6	50.6	50.5	56.6 (1)	44.2 (1)
LeFlore (S)	3	73.1 (1)	---	---	---	---	---	---	---
(Heavener)									
Mayes (S)	1	59.9	35.2	50.3	59.2	58.3	52.1	---	58.5
(Adair)									
Muskogee (S)	4	58.0 (3)	---	---	---	---	---	---	---
(Beland & Muskogee)	2	56.3	68.4	63.8	62.1	57.2	56.9	49.5 (1)	64.3 (1)
(Bacone College)									
Wagoner (S)	1	41.6	39.0	15.9	28.7	22.7	30.2	11.6	---
(Broken Arrow)									
Johnston (O)	1	---	---	---	---	---	---	---	---
(Tishomingo, Murray Jr. College)									
Muskogee (O)	1	---	---	---	---	---	---	---	---
(Muskogee)									
Muskogee (O)	1	51.9	35.6	24.2	44.9	49.2	51.8	---	---
(Warner, Connors Jr. College)									
Ottawa (O)	2	---	---	---	---	---	---	---	---
(Miami, N.E. Okla. Jr. College)									
Av. Yield, 22 test yrs.		62.4 (14)	57.5 (11)	56.3 (11)	55.8 (11)	54.8 (11)	53.6 (9)	43.1 (6)	61.6 (4)
Percent of Traveler		105	103	101	100	99	97	72	115

* (S) Experiment Station Supervised tests; (O) Observational tests.

** Number in parentheses equals the number test years.

Wheat, Oats and Barley

Yields From Spring-sown Oats

EASTERN OKLAHOMA

Table VII.—Average Grain Yields of 20 Spring-sown Oat Varieties, Tested At Two Locations in Eastern Oklahoma 1951-1954; by Test Locations.

(bushels per acre)

County and Locations	No. Years Grown	Andrew	Clinton	Kanota	Nemaha	Neosho	New Nortex	0-200	Taggart	Cimarron	Cherokee
Garvin (S)*	4	51.0	29.9	34.0	36.1	41.2	27.0	50.2	37.3	37.3	---
(Stratford)	3	55.4	35.3	37.5	43.9	45.6	28.3	48.1	35.1	31.4	39.6
	2	59.3	36.3	45.7	50.0	51.5	29.3	53.7	40.1	34.4	45.8
Wagoner (S)	3	72.4	48.0	70.8	68.6	68.9	61.9	75.3	54.5	67.3	64.6
(Wagoner & Coweta)	2	76.5	48.5	76.9	76.2	73.1	66.0	76.6	53.4	70.6	67.2
		---	---	---	---	---	---	---	---	---	---
Av. Yield, 7 test yrs.		60.2	37.7	49.7	50.1	53.1	42.0	60.9	44.6	50.1	---
Percent of Andrew		100	63	83	83	88	70	101	74	83	---
Av. Yield, 6 test yrs.		63.9	41.7	54.1	56.3	57.3	45.1	61.7	44.8	49.3	52.1
Percent of Andrew		100	65	85	88	90	71	97	70	77	82
Av. Yield, 5 test yrs.		67.2	43.3	60.7	61.2	56.6	43.4	59.5	42.4	47.0	57.0
Percent of Andrew		100	64	90	91	84	65	89	63	70	84
Av. Yield, 4 test yrs.		67.9	42.4	61.3	63.2	62.3	47.7	65.1	46.7	52.5	56.5
Percent of Andrew		100	62	90	93	92	70	96	69	77	83

* (S) Experiment Station Supervised Tests.

Table VII.—(continued).

County and Locations	No. Years Grown	Marion	0-205	Clin-tafe	Arlington	Coy	Alamo	Ark-win	Le-Conte	Tennex	Wintok
Garvin (S)	4	---	---	---	46.6	44.5	---	---	---	---	---
(Stratford)	3	45.1	57.6	42.8	46.7	40.4	---	---	---	---	23.8
	2	48.1	65.2	43.0	46.9	40.7	57.9	34.7	29.1	31.3	---
Wagoner (S)	3	64.2	73.8	---	---	---	---	---	---	---	53.1
(Wagoner & Coweta)	2	64.9	80.9	55.5	71.5	58.7	91.6	46.1	61.0	62.2	51.4
		---	---	---	---	---	---	---	---	---	---
Av. Yield, 7 test yrs.		---	---	---	---	---	---	---	---	---	---
Percent of Andrew		---	---	---	---	---	---	---	---	---	---
Av. Yield, 6 test yrs.		54.7	65.7	---	54.9	49.2	---	---	---	---	---
Percent of Andrew		86	103	---	92	83	---	---	---	---	---
Av. Yield, 5 test yrs.		53.0	66.9	47.9	56.6	47.7	---	---	---	---	---
Percent of Andrew		79	99	71	84	71	---	---	---	---	---
Av. Yield, 4 test yrs.		56.5	73.0	49.2	59.2	49.7	74.7	40.4	45.1	46.7	37.4**
Percent of Andrew		83	108	72	87	73	110	59	66	69	61

** The four year average for Wintok is for 1952 and 1953 at Stratford, and 1953 and 1954 at Coweta, while the other variety averages are for 1953 at each location.

Table VIII.—(continued)

County and Location	No. Years Grown	Harbine	Tenkow	Ward	Kearney	C.I. 9174	Fayette
Av. Yield, 22 test yrs.		29.4	25.8	29.2	21.2(15)	36.6(9)	---
Percent of Ward		101	88	100	68	104	---
Av. Yield, 37 test yrs.		30.0	29.7	31.7	26.8(27)	35.0(14)	---
Percent of Ward		95	94	100	74	100	---
<i>Eastern Oklahoma</i>							
Garvin (S) (Stratford)	5	34.2	38.4	36.3	---	50.3(2)	30.0(4)
Hughes (S) (Holdenville)	3	40.2	49.9	41.3	---	36.8(2)	33.5(2)
LeFlore (S) (Heavener)	2	25.2	26.3	27.4	---	---	16.4(1)
Mayes (S) (Adair)	1	24.8	30.9	30.1	---	33.4	30.9
Muskogee (S) (Beland & Muskogee)	4	39.1	45.3	41.4	---	25.5(2)	41.3(3)
Rogers (S) (Inola)	1	41.5	54.1	44.0	---	---	50.6
Wagoner (S) (Broken Arrow)	1	12.6	14.3	10.1	---	14.3	13.0
Johnston (O) (Murray J. C.)	1	25.4	30.0	30.1	---	---	25.6
Muskogee (O) (Muskogee)	2	12.8	18.1	15.0	---	---	15.2
Muskogee (O) (Connors J. C.)	1	32.1	44.8	31.5	---	---	31.8
Ottawa (N.E. Okla. J.C.)	2	30.7	35.9	33.9	---	---	33.9(1)
		---	---	---	---	---	---
Av. Yield, 23 test yrs.		31.4	35.3	32.0	---	34.6(8)	28.4(18)
Percent of Ward		98	110	100	---	112	90

** Number in parentheses equals the number of test years.

* (S) Experiment Station Supervised tests; (O) Observational tests.

APPENDIX

Test Plot Locations, 1950-1954

County	Town	No. Yrs.	Cooperator	
			Farmer	Others
<i>Western Oklahoma</i>				
Beckham (S)	Elk City	2	P. A. McDonald	Charles Barney, Voc. Ag. Inst.
Beaver (O)	Beaver City	1		Otto Legg, Voc. Ag. Inst.
Blaine (S)	Okeene	5	Raymond Westfahl & R. C. Outhier	Vance Deaton, Co. Agent Okeene Mill & Elevators
Blaine (S)	Watonga	2	County Fair Grounds	Vance Deaton, Co. Agent
Blaine (O)	Geary	1		Jack Elder, Voc. Ag. Inst.
Caddo (S)	Hinton	4	Wesley Reckard	L. R. Foster, Voc. Ag. Inst.
Caddo (O)	Cyril	3	School Land	Frank Bartlett, Voc. Ag. Inst.
Canadian (O)	Yukon			Sherman Glass & John Griggs, Vet. Ag. Insts.
Comanche (O)	Lawton	1	Cameron Jr. College	Donald Prophet, Ag. Inst.
Comanche (O)	Chattanooga	1	Air Port SW of Town	David Martin, Voc. Ag. Inst.
Comanche (O)	Indianoma	1		Robert Ford, Voc. Ag. Inst.
Custer (S)	Thomas	3	Roof, Jones & Mc- Neil Elevator land	Clyde McNeil, Elev. Mgr. & A. R. Patrick, Co. Agt.
Custer (O)	Clinton	2		J. B. Morton, Voc. Ag. Inst.
Dewey (O)	Vici	1		Don Tallent, Co. Agt.
Grady (S)	Chickasha	3	Okla. A&M College Cotton Research Station	Edd Oswalt, Supt.
Jackson (S)	Blair & Altus	3	Okla. A&M College Irrigation Station	James Garton & Dudley Barefoot
Kay (S)	Ponca City	5	Oscar A. Belling- hausen	W. R. Hutchison, Co. Agt.
Kiowa (S)	Hobart	3	Darrel McNutt	Buford Cloar, Hobart Flour & Feed, Sid Barnes, Farmers Coop & Co. Agents
Kiowa (S)	School District No. 8	1	Burl Brewer	
Kingfisher (O)	Okarche	1		Clyde Ward, Vet. Ag. Inst.
Kingfisher (O)	Cashion	1		John W. Dawes, Voc. Ag. Inst.
Tillman (O)	Grandfield	3		Wm. E. Brown, Voc. Ag. Inst.
Washita (S)	Rocky	5	Bunch farm (Leonard Holland- worth Farm, 1955)	Darrel Dilks & Richard Northington, Voc. Ag. Insts.

County	Town	No. Yrs.	Cooperator	
			Farmer	Others
Washita (O)	Port School	1		Harold H. Williams, Voc. Ag. Inst.
Woods (S)	Freedom	2	Scott Cummins	Buck Wright, Co. Agt.
Woods (O)	Alva	2		Ronald Meek, Voc. Ag. Inst.
Woods (O)	Decoma	2		Donald Brown, Voc. Ag. Inst.
Woodward (O)	Mooreland	3		Wm. F. Taggart, Co. Agt.
Woodward (O)	Mutual	3		Wm. F. Taggart, Co. Agt.

Eastern Oklahoma

Garvin (S)	Stratford	5	Caskey Farm	Lowell Caskey, Vet. Ag. Inst.
Hughes (S)	Holdenville	3	Al Feighny	Jesse Barbre, Co. Agt.
LeFlore (S)	Heavener	3	Okla A&M Soil Improvement Sta- tion	
Mayes (S)	Adair	1	Boston farm (1955 Loyd Welker farm)	James I. Boston Voc. Ag. Inst.
Muskogee (S)	Beland (1950) Bacone College	4	R. C. Borum Roger Getz, Supt.	Ira Hollar, Co. Agt. W. N. Cook, Co. Agt.
Muskogee (O)	Muskogee	2	John Grevel	Gene Beach, Voc. Ag. Inst.
Muskogee (O)	Warner	1	Connors Jr. College	Enos Vann, Ag. Inst.
Johnston (O)	Tishomingo	2	Murray Jr. College	J. B. Cox, Ag. Inst.
Wagoner (S)	Broken Arrow	1	Irvin Willhoite	Gaston Franks, Co. Agt.
Wagoner (S) (Spring Oats)	Wagoner Coweta	1 2	Donald Blair C. M. Londagin	Gaston Franks, Co. Agt.
Rogers (S)	Inola	1	Ray McDaris	Wm. S. Whitenton, Co. Agt.
Ottawa (O)	Miami	2	N.E. Okla. A&M Jr. College	Marvin Wood, Ag. Inst. L. E. Ball, Ag. Inst.

(S) - Experiment Station Supervised Tests.

(O) - Observational Tests.

