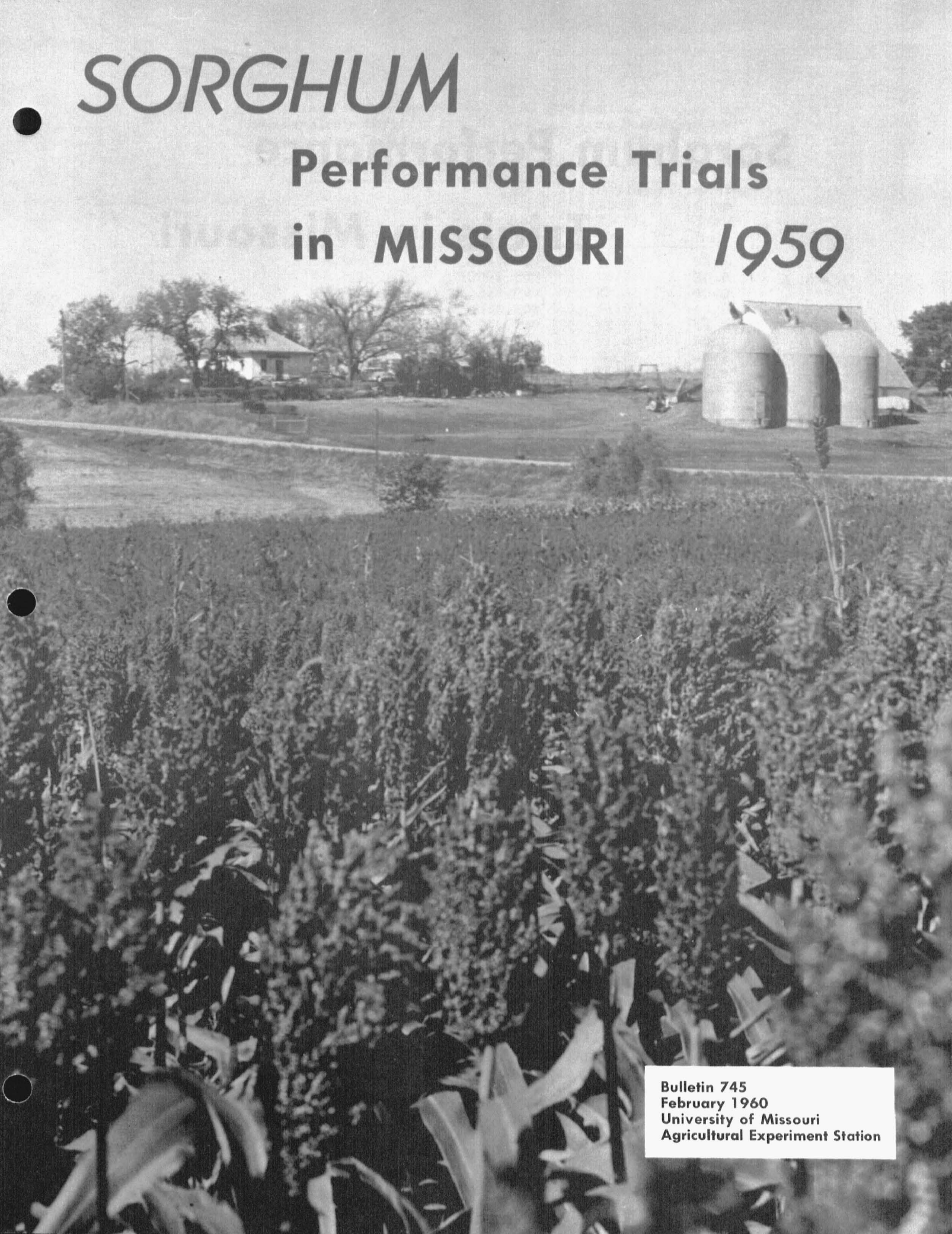
SORGHUM

Performance Trials in MISSOURI 1959



Bulletin 745
February 1960
University of Missouri
Agricultural Experiment Station

Sorghum Performance Trials in Missouri

1959

By
A. C. McBride
O. V. Singleton
M. S. Zuber

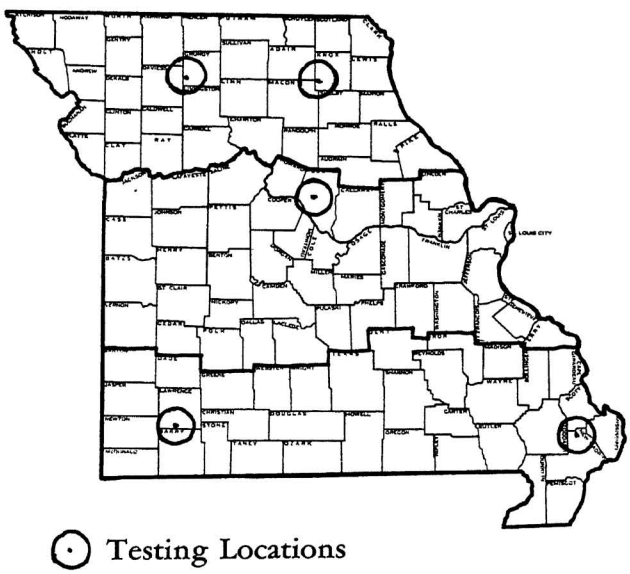


Fig. 1—Outline map of Missouri showing the testing locations for the 1959 grain sorghum tests.

ACKNOWLEDGEMENT

This bulletin reports on Department of Field Crops Research Project 351, Sorghum Testing. Cooperating in the trials were the Department of Field Crops of the University of Missouri Agricultural Experiment Station and the Crops Research Division, Agricultural Research Service, U.S. Department of Agriculture. A. C. McBride is a graduate assistant in the University Department of Field Crops and O. V. Singleton is an instructor in that department. M. S. Zuber is a research agronomist in the Crops Research Division, Agricultural Research Service, U.S. Department of Agriculture and research associate, Department of Field Crops, University of Missouri.

The following individuals assisted in making the 1959 Sorghum Performance Trials possible:

Earl Barnes, Norman Brown, Carl Hayward, Robert Mason, Victor Guinn, William A. Crane, Fred Harman and Clayton Morris.

Table 1 The Average Number of Acres, Total Production, Average Acre Yield for Grain Sorghum and the Average Acre Yield for Corn During the Six-Year Period, 1953 to 1958, and Estimated for 1959.

	Sorghum			
Year	Acreage	Total Production Bu.	Average Acre Yield Bu.	Average Corn Yield Bu.
1953	34,000	510,000	15.0	33.5
1954	66,000	1,056,000	16.0	20.0
1955	93,000	2,325,000	25.0	40.0
1956	187,000	5,610,000	30.0	48.0
1957	590,000	25,960,000	44.0	44.0
1958	688,000	35,088,000	51.0	56.0
1953-1958 Average	276,300	11,758,200	30.2	40.2
1959*	507,000	25,350,000	50.0	55.0

* Estimated as of December 1, 1959.

Performance trials for grain sorghum hybrids and varieties on an entry fee basis paid by various seed companies were initiated in 1958. In 1959, the testing locations were expanded from three to five and these were located near Spickard (Northwest), Edina (Northeast), Columbia (Central), Pierce City (Southwest) and Sikeston (Southeast), Missouri (Figure 1).

The acreage of grain sorghum in Missouri increased yearly from 1953 to 1958. In 1959, the acreage decreased from that of 1958. However, the 1959 acreage was still nearly twice that of the average acreage for the 1953-1958 period. The acreages of grain sorghum for the 1953 to 1959 period are shown in Table 1.

The comparative average acre yields for grain sorghum and corn for the state of Missouri are given in Table 1. These data were taken from the Missouri Farm Census reports. The six-year average (1953-1958) for these two crops differed by 10.0 bushels whereas in 1959 this difference was only 5.0 bushels in favor of corn.

Since the commercial yield tests for corn and grain sorghum were in the same area for four of the five locations in 1959, a crude comparison of the yields for these two crops can be made. In making these comparisons, it should be emphasized that the yield trials of these two crops were planted at different dates, on different plots of land and not likely to be cultivated and fertilized the same. The results are shown in Table 2.

EXPERIMENTAL METHODS

Seed Source

All producers and distributors of grain sorghum seed were eligible to enter the tests in 1959. No limit was placed on the number of hybrids any one company could enter. Firms entering the tests had

Table 2 - Comparative Acre Yields of Grain Sorghum and Corn at Four Testing Locations in Missouri in 1959.

	Grain Sorghum			Corn		
Testing Location	Average Yield Bu.	High Yield Bu.	Low Yield Bu.	Average Yield Bu.	High Yield Bu.	Low Yield Bu.
Columbia	73.3	95.9	45.3	81.6	97.4	69.8
Sikeston	30.6	41.8	13.1	108.5	125.9	87.7
Pierce City	62.2	93.6	24.8	106.6	136.5	76.3
Spickard	95.8	118.8	73.4	107.4	130.0	83.8

Table 3 Seed Source and Names of Entries Tested in 1959.

Seed Source	Address	Entries
Advance Seed and Grain Co.	Phoenix, Ariz.	AMAK R10
		AMAK R12
DeKalb Agri. Assn., Inc.	Lubbock, Tex.	DeKalb C-44a
		DeKalb D-50a
		DeKalb D-55
		DeKalb E-56a
		DeKalb F-62a
		DeKalb F-63
		DeKalb X-49
Frontier Hybrids, Inc.	Scott City, Kan.	Frontier 400B
		Frontier 410B
Garst & Thomas Hybrid Corn Co.	Coon Rapids, Ia.	Garst & Thomas Med. Early Mat.
		Garst & Thomas Med. Mat.
Lindsey Seed Company	Lubbock, Tex.	Lindsey 788
MFA Seed Division	Marshall, Mo.	MFA 100 day X 3
		MFA 105 day X 3
Northrup King and Co.	Minneapolis, Minn.	Northrup King NK 140
		Northrup King NK 210
		Northrup King NK 230
Pfister Associated Growers, Inc.	Aurora, Ill.	Pfister PAG 435S
		Pfister PAG 515S
		Pfister PAG 605S
		Pfister PAG 625S
Steckley Hybrid Corn Co.	Lincoln, Nebr.	Steckleys GG R103
		Steckleys GG R106
		Steckleys GG R108
		Steckleys GG R111
		Steckleys GG Exp. R113
		Steckleys GG 107
		Steckleys GG 112
Missouri Agri. Exp. Station	Columbia, Mo.	RS 590, RS 608, RS 610
		RS 650, RS 661, Redlan
		Martin, Redbine 60
		Plainsman, Westland
		Midland, Dwarf Kafir 44-14
		Combine Kafir 60, Caprock
		Kansas 602, Kansas 603
		Kansas 701

the option of having their entries tested in either North Missouri (Spickard and Edina) South Missouri (Sikeston and Pierce City) or in all locations. In all cases the entries for both Northern and Southern groups were tested at Columbia (Central), this gave a minimum of three testing sites for each entry. (Table 3).

Field Design

The entries were planted in four plots at each location, with individual plots consisting of two rows 25 feet long, located at random over the testing area to minimize cultural and soil differences. Prior to harvest, each plot was cut back to permit harvesting of 20 feet per row.

Stand

Entries were planted at the rate of four grams of seed per 25-foot row (eight grams per plot) with a belt planter. Plots were thinned at all locations, but due to poor emergence, stands were not uniform. At the Sikeston location, however, uniform stands of 114 plants per plot were obtained. The number of plants in each plot was determined and is reported.

Off-Type Heads, Tall Plants, and Lodged Plants

Off-type heads, tall plants and lodged plants

were counted prior to harvest. The percent of lodging was based on the total number of plants, while the off-type heads and tall plants were reported as the actual numbers present.

Head Compactness and Exsertion

Compactness was graded from 1 to 5 (1 for the most compact, or tight, head and 5 for the most lax, or loose, head).

Exsertion is the relative distance that the head protrudes above the top leaf blade. (Grade 1 indicates the least exsertion and grade 5 the greatest.)

Moisture

Moisture content at harvesting is not reported. Harvesting was late at all locations and it was assumed that all entries had reached a uniform moisture content.

Threshing Percent

Threshing percent was calculated as the amount of grain recovered in relation to the total head weight. All threshing percentages were determined after the heads from all samples had been air-dried to a uniform moisture content. Threshing percentages at Columbia were calculated from the entire plot for each replication. At Sikeston, Pierce City, Edina, and Spickard, the theshing percentages were determined from 12 randomly selected heads from each replication.

Yield

The heads taken from 40 linear feet of each plot were harvested by hand and weighed. Acre yields were computed on the basis of the threshed grain. Yields were not adjusted for differences in stands. Acre yields at each location reported in this bulletin constitute an average acre yield of the four plots, except at Sikeston where only three plots per entry were harvested.

Date of Blooming

The number of days from planting to 50 percent blooming, was recorded for each replication, at Columbia, Sikeston and Pierce City.

Plant Height

The average height of the plants in inches was recorded for each replication.

ENVIRONMENTAL CONDITIONS

The rainfall and temperature records for May 1 to September 15 at each location are reported in Tables 4 and 5. A deficit in total rainfall plus several long dry periods at Columbia, caused a substantial reduction in yield. Weather conditions during the growing period at the other testing locations were conducive to above average yields. Although the

Table 4 Total rainfall, number of days with rain, and dry periods from May 1 to September 15 at each of the testing locations.

Testing Location	Total Rainfall Inches	May	June	July	Aug.	Sept. 15	Total	Dry Periods *
Columbia	10.60	15	2	12	7	2	38	4/28-5/10 5/30-7/3 7/27-8/15 8/22-9/15
Sikeston	14.99	12	7	8	9	3	39	
Pierce City	16.13	12	9	15	7	1	44	8/2-8/22 8/29-9/15
Edina (Kirksville)	16.10	15	4	8	7	2	36	6/1-6/29
Spickard	20.05	14	5	10	5	3	37	6/1-6/28 7/9-8/4 9/1-9/15

* A dry period must have at least 15 consecutive days with less than 0.25 inch of precipitation.

Table 5 Average Temperature, Departure from Normal, and the Number of Days with Temperatures of 90-99° F., and 100° F. or higher at Each of the Testing Locations from May 1, to September 15.

Testing Location	Average Fahrenheit Temperature	Departure From Normal	No. days with Temp. 90-99° F. 1959	Ave.	No. days with Temp. 100° F. or Higher-1959
Columbia	74.4	+1.8	49	39	0
Sikeston	75.0	+0.3	41	37	0
Pierce City	75.5	+0.9	37	25	0
Edina (Kirksville)	71.3	-0.7	24	44	0
Spickard	75.6	+3.2	30	44	0

weather was favorable at the Sikeston location, the low yields obtained were attributed to the late planting date. The delay in harvest along with unfavorable environmental conditions resulted in excessive lodging in the tests located at Pierce City and Edina.

EXPERIMENTAL RESULTS

The results of the individual tests are reported in Tables 6, 7, 8, 9, and 10. Summaries for the tests in North and South Missouri, are in Tables 11 and 12 respectively. Thirty-three varieties and hybrids were grown in all five locations. The summary of these 33 entries is reported in Table 13.

The threat of bird damage after the seeds formed was present at all locations. Some bird damage was evident at all locations with the Sikeston test being the most severely damaged. In order to obtain data on yield at Sikeston each head in three of the four replications was protected with a parchment bag. This was not accomplished until considerable damage had already occurred. The early maturing entries were damaged to the greatest extent. Electrically ignited acetylene guns were used effectively to keep birds out of the plots at Columbia and Pierce City.

Lodging was very severe at Pierce City and Edina and at harvest many heads were on the ground and were badly sprouted.

Twenty-one hybrids and varieties were tested, both in 1958 and 1959, at Columbia, Sikeston and Pierce City. Data on yield, lodging and blooming dates for these two years are summarized in Table 14.

WEEKLY SAMPLING STUDY

In a separate experiment the rate of drying, threshing percentages on a green and dry weight basis, and the comparative moisture content of the whole head, stems, and grain were determined from samples taken each week beginning August 22, and continuing through November 7 (Table 15).

The difference between threshing percentage determined on a green-weight versus an air-dry-weight basis was slight.

The stems contained more moisture on a percentage basis than either the whole head or the grain on a given sampling date. The comparative proportion of the moisture by weight in the head was less than that in the stems. The influence of rainfall during the harvesting period is reflected by an increase of moisture content in the head with the stems showing the largest increase. This was especially evident on the September 28 and November 2 harvesting dates.

Figure 2 shows the moisture content in the grain over a two-year period (1958 and 1959). The periods when rain occurred are reflected by the increased moisture content of the grain.

• • •

Table 6 1959 Performance Record for the Sorghum Test Conducted in Boone County, Near Columbia, Missouri. (Exp. S70).

Hybrid or Variety	Acre Yield	Plant Height	Planting to 50% Bloom	Threshing	Plants Per 40 Ft. Row	Total 160 Ft. Row: Off-Type Heads	Total 160 Ft. Row: Tall Plants	Lodging	Head: Compactness	Head: Exsertion
	Bu.	Inch	Days	%	No.	No.	No.	%	1-5	1-5
Lindsey 788	95.9	45.5	70.3	75.2	111.3	12	1	0.0	2.3	2.5
DeKalb D50a	86.9	51.8	62.5	71.8	97.3	2	0	13.6	5.0	3.5
Kansas 602	85.4	43.3	68.8	73.3	106.3	0	2	0.0	1.5	2.3
Northrup King NK 210	85.2	49.8	61.8	69.7	116.3	8	0	3.0	1.8	3.3
RS 610	83.9	49.0	62.0	69.6	114.8	4	2	3.5	2.5	2.8
DeKalb C44a	83.6	43.0	61.8	70.5	100.5	2	1	9.7	3.8	1.8
DeKalb F62a	83.5	45.8	64.5	71.5	91.0	0	0	5.2	5.0	2.3
Northrup King NK 230	82.6	45.0	64.5	70.9	111.0	2	3	0.0	2.5	2.0
Frontier 410B	81.5	43.8	66.0	71.8	102.3	12	3	0.0	1.8	2.5
Steckleys GG 107	80.6	45.8	61.8	74.3	112.8	10	0	2.9	2.3	4.0
Pfister PAG 605S	80.2	48.0	66.8	76.5	97.5	1	1	0.5	2.8	2.3
AMAK R12	79.0	44.8	66.3	71.6	95.0	0	3	1.3	1.8	2.3
Pfister PAG 625S	78.5	42.0	68.3	69.5	113.8	2	1	0.0	1.8	2.0
Frontier 400B	78.4	47.5	62.3	72.7	98.8	9	0	1.8	2.0	3.0
DeKalb D55	78.3	49.5	63.3	70.9	102.8	0	1	21.9	2.5	2.3
RS 650	78.0	45.3	65.3	73.5	83.0	17	2	0.0	1.8	2.0
Steckleys GG R106	77.4	44.3	65.3	69.0	98.8	0	0	0.0	2.3	2.0
Steckleys GG 112	76.6	46.0	62.8	71.5	108.3	23	3	0.0	2.0	2.8
DeKalb F63	76.5	45.0	69.0	70.4	97.8	0	1	0.0	3.8	2.0
Kansas 603	76.4	48.3	67.8	73.8	99.3	2	6	6.0	2.3	3.0
Steckleys GG R111	74.9	45.3	65.0	71.6	103.0	0	3	1.0	2.8	2.3
Steckleys GG R103	73.6	44.0	63.0	71.8	113.8	2	1	3.3	3.0	2.5
Combine Kafir 60	72.9	45.5	66.0	76.0	100.0	0	2	0.0	1.0	2.0
Kansas 701	72.9	47.5	73.0	71.6	98.8	0	2	0.0	1.8	2.0
DeKalb E56a	72.2	44.8	64.3	65.9	105.3	0	0	0.0	5.0	2.0
Garst & Thomas Med. Mat.	71.9	41.8	65.3	70.4	93.3	1	0	0.0	1.3	2.3
Steckleys GG R108	71.9	42.0	65.3	75.5	86.5	1	2	0.0	2.5	2.3
Pfister PAG 515S	71.6	45.0	65.8	67.7	78.3	0	0	0.0	2.0	2.0
RS 608	70.5	42.8	62.8	70.2	108.3	0	3	0.9	2.8	3.0
AMAK R10	69.8	41.5	61.8	70.4	103.3	0	3	1.7	2.5	3.0
RS 590	69.6	46.8	63.3	73.2	72.8	5	2	1.7	2.3	2.8
Plainsman	69.4	38.0	69.5	68.7	118.0	0	3	0.0	1.8	2.8
Northrup King NK 140	69.2	47.0	60.5	74.7	105.3	0	0	1.2	4.0	3.3
Redbine 60	68.9	44.0	64.0	70.8	127.0	0	0	0.4	3.8	2.8
Redlan	68.6	44.3	72.5	71.3	111.5	0	0	0.0	2.3	1.8
Caprock	68.1	40.5	69.8	69.6	90.3	0	0	0.0	3.0	1.3
Garst & Thomas Med. Early Mat.	67.9	54.0	58.5	78.4	95.5	0	3	4.7	4.3	4.5
RS 661	67.2	43.0	66.3	72.9	61.5	1	2	0.0	2.5	1.8
MFA 105 day X 3	65.0	44.3	63.0	72.7	72.3	6	2	0.7	2.0	2.0
Pfister PAG 435S	64.0	41.5	62.3	76.2	86.8	2	1	0.0	2.8	2.3
Midland	63.5	43.0	64.5	70.1	105.0	0	0	0.0	2.0	2.5
Westland	63.0	38.5	68.5	66.8	103.5	0	1	0.0	1.5	1.0
DeKalb X-49	61.5	44.8	60.5	65.9	77.8	1	3	0.0	5.0	2.5
Martin	61.2	41.8	65.3	72.6	110.8	0	0	2.0	3.3	2.3
Dwarf Kafir 44-14	61.1	45.8	75.0	67.2	107.5	0	0	1.6	1.8	2.8
MFA 100 day X3	59.0	45.3	66.0	72.1	54.3	2	1	0.0	2.8	1.8
Steckleys GG Exp. R113	45.3	42.3	69.0	71.1	45.5	3	2	0.0	2.5	1.0
Mean	73.3	44.9	65.4	71.6	97.8	3	1	1.9	2.6	2.4

Differences in yield between any two entries of less than 11.9 bushels are not considered significant.

Table 7 1959 Performance Record for the Sorghum Test Conducted in New Madrid County, Near Sikeston, Missouri. (Exp. S71).

Hybrid or Variety	Acre Yield	Plant Height	Planting to 50% Bloom	Threshing	Total 160 Ft. Row: Off-Type Heads	Total 160 Ft. Row: Tall Plants	Lodging	Head: Compactness	Head: Exsertion
	Bu.	Inch	Days	%	No.	No.	%	1-5	1-5
Pfister PAG 515S	41.8	38.0	59.0	71.6	0	0	1.0	2.0	2.0
RS 650	39.9	37.3	58.7	72.8	14	1	0.0	2.3	2.0
DeKalb F63	39.6	42.7	60.7	71.0	0	0	0.3	4.0	2.7
DeKalb D55	39.1	40.7	57.7	71.5	2	1	2.0	2.3	2.0
Frontier 410B	38.5	40.0	57.3	72.2	2	3	1.3	2.3	2.7
AMAK R12	38.2	37.3	59.0	72.0	0	1	2.0	2.0	1.0
Pfister PAG 605S	37.1	42.0	60.3	72.1	0	0	1.0	3.3	2.3
Garst & Thomas Med. Mat.	36.2	37.3	58.7	70.8	1	1	0.3	2.7	2.0
Pfister PAG 625S	36.2	39.3	61.7	70.2	1	0	0.0	2.0	2.7
DeKalb C44a	36.2	37.3	58.7	71.8	0	3	2.0	4.0	2.3
Frontier 400B	34.6	38.7	57.0	71.0	0	1	3.0	3.7	2.3
DeKalb F62a	34.4	40.7	58.7	69.1	0	2	0.0	4.7	2.3
DeKalb E56a	32.7	40.0	57.0	67.8	0	0	2.0	4.0	1.7
RS 590	32.2	39.3	58.0	69.3	3	0	2.0	2.7	2.0
RS 608	32.1	36.0	56.7	69.7	0	3	0.0	2.7	1.3
RS 661	32.1	38.7	58.3	69.0	1	3	1.3	3.3	2.7
MFA 100 day X 3	31.9	40.7	57.3	69.6	1	0	0.7	3.0	2.3
Northrup King NK 210	31.8	40.0	56.0	71.5	4	1	3.3	2.3	2.7
DeKalb D50a	31.8	44.7	54.7	67.3	2	3	7.0	4.3	1.7
DeKalb X-49	31.6	38.0	58.3	68.6	0	3	1.0	5.0	3.3
RS 610	31.1	38.7	55.7	70.4	3	5	9.7	3.0	2.0
MFA 105 day X 3	30.9	38.7	58.7	68.5	2	2	0.7	2.7	2.7
Kansas 603	30.7	42.0	60.7	70.2	0	2	2.0	3.7	3.7
Combine Kafir 60	30.5	40.7	60.3	70.6	0	0	1.0	1.7	2.0
Kansas 701	29.9	43.3	63.7	68.9	0	3	0.0	3.7	3.0
Northrup King NK 230	29.0	37.3	57.0	68.5	0	1	3.7	3.3	2.7
Kansas 602	27.5	40.0	61.3	66.0	0	1	0.3	2.7	3.0
AMAK R10	26.8	38.0	57.7	68.6	0	1	7.0	3.3	2.0
Redlan	26.0	40.7	64.0	67.5	0	0	0.0	2.7	2.3
Lindsey 788	26.0	42.0	65.3	63.0	2	5	0.3	3.3	3.7
Caprock	25.1	38.0	66.0	60.1	0	0	0.0	2.7	2.0
Dwarf Kafir 44-14	24.8	44.0	62.0	66.8	0	0	1.0	2.3	3.0
Westland	24.7	34.0	60.3	67.5	0	0	0.0	3.3	2.3
Martin	24.6	38.0	60.0	70.8	0	0	0.3	3.7	3.0
Redbine 60	22.8	36.7	59.3	61.4	0	1	6.3	4.3	2.7
Plainsman	22.5	38.7	64.0	63.1	0	1	0.0	3.0	3.3
Northrup King NK 140	21.1	37.3	55.7	68.4	0	0	1.3	2.7	3.3
Midland	20.0	40.0	59.7	65.8	0	0	0.0	2.0	1.7
Garst & Thomas Med. Early Mat.	13.1	45.0	51.7	65.0	1	0	1.0	3.0	3.0
Mean	30.6	39.5	59.1	68.7	1	1	1.4	3.1	2.4

Differences in yield between any two entries of less than 8.6 bushels are not considered significant.

Table 8 1959 Performance Record for the Sorghum Test Conducted in Lawrence County, Near Pierce City, Missouri. (Exp. S72).

Hybrid or Variety	Acre Yield	Plant Height	Planting to 50% Bloom	Threshing	Plants Per 40 Ft. Row	Total 160 Ft. Row		Lodging	Head	
						Off-Type Heads	Tall Plants		Compactness	Exsertion
	Bu.	Inch	Days	%	No.	No.	No.	%	1-5	1-5
Kansas 701	93.6	55.5	75.5	81.2	107.3	3	4	20.0	3.0	3.3
Northrup King NK 210	88.2	49.5	72.8	79.7	98.5	0	1	7.6	2.5	3.0
Lindsey 788	88.2	52.3	74.0	81.7	103.3	1	4	40.4	3.3	3.3
Pfister PAG 605S	84.6	50.3	73.8	81.0	92.3	0	2	10.6	3.8	2.8
AMAK R12	83.1	46.5	74.0	77.7	91.0	0	1	17.9	2.0	2.8
Frontier 400B	80.5	47.0	72.8	79.1	90.3	1	2	5.0	2.8	2.5
Pfister PAG 515S	79.7	47.8	73.8	79.9	86.8	0	0	18.2	2.3	2.5
Pfister PAG 625S	77.4	46.0	74.0	80.8	98.0	0	1	7.4	2.3	2.8
RS 610	76.4	48.3	73.0	80.5	86.8	4	8	12.1	2.8	2.5
Redlan	72.8	48.5	73.8	81.3	93.0	0	0	35.8	2.5	3.0
Frontier 410B	70.6	46.3	74.0	80.3	105.3	2	4	19.2	2.8	3.0
Combine Kafir 60	70.4	50.5	73.3	82.0	95.3	0	2	2.9	2.8	3.0
Northrup King NK 230	70.3	46.5	73.3	81.9	108.5	0	0	23.5	3.0	3.0
RS 608	70.2	43.8	72.0	80.1	90.5	1	2	19.6	2.5	3.0
DeKalb F63	69.5	50.3	75.0	78.4	96.5	0	2	11.7	3.0	3.5
DeKalb D55	67.9	50.8	73.8	73.5	97.8	0	0	36.1	3.0	2.3
DeKalb X-49	67.1	47.3	72.3	77.1	80.8	0	0	3.7	4.8	2.8
Kansas 602	66.6	47.8	72.8	79.2	93.5	0	3	46.8	4.0	3.0
AMAK R10	65.6	44.8	72.5	76.6	93.3	0	0	5.1	2.8	2.8
MFA 105 day X 3	63.5	45.0	72.5	79.5	83.8	0	0	6.9	3.0	2.8
RS 650	63.1	45.0	73.8	80.3	79.5	1	0	34.9	4.0	2.3
Kansas 603	61.9	54.0	73.8	80.5	100.0	0	3	49.8	4.0	3.5
DeKalb C44a	59.3	43.5	72.5	74.7	93.3	0	0	56.0	3.0	2.8
Caprock	59.0	43.0	74.5	77.5	84.3	0	1	5.0	3.0	2.0
Garst & Thomas Med. Mat.	57.4	43.5	74.0	78.1	81.5	0	1	9.5	3.3	2.3
Garst & Thomas Med. Early Mat.	57.3	56.5	71.8	78.2	88.5	0	4	10.2	4.0	3.8
Plainsman	55.9	44.3	75.0	77.7	98.0	0	2	16.6	3.5	2.5
RS 590	54.5	48.5	72.8	79.2	77.3	0	0	32.0	3.8	3.3
Midland	51.5	45.5	71.3	76.8	106.5	0	1	20.2	2.3	2.5
RS 661	50.2	46.3	73.8	78.2	88.0	0	0	47.2	3.3	3.0
Northrup King NK 140	48.4	46.0	71.0	78.6	96.0	0	2	45.8	3.5	3.0
MFA 100 day X 3	47.4	50.3	73.0	81.3	72.0	1	3	41.7	3.3	2.8
DeKalb D50a	46.9	49.3	71.3	69.7	89.8	2	0	83.0	3.3	3.0
DeKalb F62a	46.6	47.3	74.0	77.8	81.3	0	0	56.6	4.0	2.8
Dwarf Kafir 44-14	40.1	47.8	74.8	68.7	93.8	0	0	30.7	3.3	2.8
Westland	37.2	41.8	72.3	77.9	102.0	0	0	31.1	3.8	3.0
Martin	30.8	46.8	72.3	82.9	101.0	1	1	77.2	3.5	3.3
DeKalb E56a	25.7	46.3	73.3	73.0	92.3	0	2	87.0	3.0	3.0
Redbine 60	24.8	47.8	72.3	74.8	91.3	0	1	75.9	2.3	2.8
Mean	62.2	47.7	73.2	78.4	92.5	0	2	29.8	3.2	2.9

Differences in yield between any two entries of less than 18.3 bushels are not considered significant.

Table 9 1959 Performance Record for the Sorghum Test Conducted in Knox County, Near Edina, Missouri. (Exp. S73).

Hybrid or Variety	Acre Yield	Plant Height	Threshing	Plants Per 40 Ft. Row	Total 160 Ft. Row		Lodging	Head	
					Off-Type Heads	Tall Plants		Compactness	Exsertion
	Bu.	Inch	%	No.	No.	No.	%	1-5	1-5
Pfister PAG 515S	90.4	46.0	74.6	99.5	1	2	22.1	2.0	2.8
DeKalb F63	90.4	49.5	73.7	101.3	0	0	42.2	2.8	3.0
DeKalb D55	89.6	50.5	75.9	123.3	2	0	32.9	2.3	3.3
Kansas 701	87.2	50.0	75.5	137.8	4	5	53.5	2.0	3.3
DeKalb E56a	87.1	47.5	74.4	113.0	1	1	31.0	4.8	3.5
Steckleys GG R106	85.4	46.8	74.6	108.3	0	0	42.7	2.8	3.3
Steckleys GG R111	84.1	46.0	74.2	118.8	3	1	36.2	2.5	3.5
Northrup King NK 210	81.2	45.8	74.3	95.5	1	0	31.4	2.5	2.8
Steckleys GG R103	77.2	45.8	75.1	109.5	0	0	11.9	2.5	3.0
AMAK R12	77.0	46.8	73.3	94.8	0	0	21.4	2.0	2.8
Steckleys GG 107	76.1	46.8	74.2	111.5	4	0	24.2	2.0	3.0
RS 650	75.2	44.5	76.2	89.5	11	0	17.6	2.0	2.8
Frontier 410B	74.9	44.5	74 5	111.0	2	0	13.1	2.0	3.0
Steckleys GG 112	74.8	47.5	74.0	103.0	13	0	46.4	2.0	3.0
RS 608	74.5	45.5	73.5	106.8	4	1	14.3	2.5	3.3
Northrup King NK 230	74.1	45.0	72.9	114.0	0	0	16.2	2.5	3.5
Pfister PAG 435S	71.3	47.5	76.3	98.3	1	0	26.0	2.8	3.3
DeKalb D50a	70.7	53.8	76.2	90.5	2	1	38.4	5.0	2.5
RS 610	70.0	46.0	72.6	108.3	1	0	32.1	2.3	2.8
DeKalb F62a	69.4	45.0	72.9	91.5	4	0	28.7	4.8	3.5
AMAK R10	69.1	44.3	73.8	96.0	0	0	15.1	2.5	2.8
Steckleys GG R108	68.5	45.0	76.1	91.8	0	0	19.3	2.3	2.5
DeKalb C44a	67.9	47.5	74.3	104.5	0	0	21.3	4.8	3.3
Midland	67.8	46.3	73.5	147.0	0	0	44.0	1.5	2.8
DeKalb X-49	67.2	46.0	71.8	100.5	0	0	13.7	5.0	3.3
Frontier 400B	64.5	46.8	73.9	88.5	9	0	18.4	2.0	2.8
RS 590	64.0	47.5	73.9	83.0	1	0	31.0	2.3	3.0
RS 661	61.5	45.8	70.2	79.5	0	0	17.0	2.0	2.8
Kansas 603	61.4	49.8	74.6	99.5	0	1	67.6	2.3	3.3
Redbine 60	61.0	47.8	72.9	107.0	0	0	47.9	3.8	3.0
Garst & Thomas Med. Mat.	59.1	44.3	75.0	90.5	3	0	11.0	2.0	3.3
Plainsman	59.0	43.8	69.8	100.3	0	1	23.4	1.8	2.3
Dwarf Kafir 44-14	57.3	46.5	69.2	110.3	2	0	53.5	2.0	3.5
Steckleys GG Exp. R113	55.4	45.0	73.6	83.5	2	9	38.0	2.3	2.3
Northrup King NK 140	54.4	47.0	74.9	101.0	0	1	23.3	3.5	2.5
Kansas 602	52.3	47.8	71.4	104.3	0	0	25.7	2.5	3.8
Redlan	52.2	46.3	76.1	70.5	0	0	39.0	2.0	2.5
Martin	48.3	45.5	73.7	93.3	0	0	27.3	3.0	3.3
Westland	42.4	45.5	70.8	89.0	0	0	12.1	3.0	3.8
Garst & Thomas Med. Early Mat.	42.3	53.5	74.6	94.3	4	0	22.8	2.8	3.8
Mean	68.9	46.8	73.8	101.5	2	1	28.8	2.7	3.1

Differences in yield between any two entries of less than 20.5 bushels are not considered significant.

Table 10 1959 Performance Record for the Sorghum Test Conducted in Grundy County, Near Spickard, Missouri. (Exp. S74).

Hybrid or Variety	Acre Yield	Plant Height	Thresh-ing	Plants Per 40 Ft. Row	Total 160 Ft. Row: Off-Type Heads	Total 160 Ft. Row: Tall Plants	Lodg-ing	Head: Compact-ness	Head: Exsertion
	Bu.	Inch	%	No.	No.	No.	%	1-5	1-5
Kansas 701	118.8	52.8	76.7	138.3	1	7	5.1	1.5	3.5
DeKalb D50a	116.5	54.8	78.2	118.0	2	2	4.4	5.0	4.0
DeKalb F63	114.4	49.3	76.8	122.0	0	0	0.6	4.0	3.5
Kansas 603	113.6	52.0	73.2	135.8	0	0	11.8	2.0	3.8
DeKalb D55	111.1	53.3	76.1	117.8	2	2	9.3	3.3	3.0
RS 661	105.7	47.5	72.4	106.8	1	2	0.0	3.0	3.5
Frontier 410B	105.6	48.8	75.4	120.5	8	2	0.2	2.0	3.3
Frontier 400B	105.3	49.8	76.8	121.0	6	1	0.8	2.5	3.0
Steckleys GG R106	104.3	48.3	75.2	128.0	4	0	0.4	3.0	3.5
RS 590	104.2	51.0	75.4	111.0	4	3	0.5	2.8	3.0
Pfister PAG 515S	102.6	47.3	72.5	123.0	4	2	0.0	2.0	3.0
Northrup King NK 210	101.2	50.3	71.7	130.5	3	1	0.0	2.5	3.3
RS 610	101.1	50.8	70.9	130.5	10	9	1.0	2.8	3.0
AMAK R12	101.0	46.8	71.1	131.3	1	2	1.3	2.3	3.0
DeKalb F62a	100.7	46.0	74.3	117.3	0	0	0.4	4.5	3.0
Steckleys GG 107	99.8	48.8	73.4	139.3	18	2	0.4	2.8	3.3
RS 650	99.6	46.3	72.5	118.0	16	0	0.2	2.3	2.5
Kansas 602	99.3	48.3	74.1	141.3	0	2	0.5	2.0	3.5
Steckleys GG R111	98.3	47.3	70.2	124.8	3	1	0.8	3.3	3.3
Steckleys GG 112	97.6	51.0	75.7	126.3	22	4	1.4	2.0	3.8
RS 608	95.5	45.8	76.7	123.0	2	3	0.8	2.8	2.8
DeKalb E56a	94.2	47.0	70.8	122.8	1	2	0.2	5.0	3.0
Northrup King NK 230	93.4	46.8	69.6	133.0	2	6	0.2	2.8	3.3
Garst & Thomas Med. Mat.	92.8	46.3	74.2	122.5	1	3	0.2	2.0	3.0
Redbine 60	91.2	46.8	72.6	137.8	0	0	0.7	4.0	3.3
Redlan	90.6	48.0	73.1	119.3	0	0	0.6	1.8	2.8
Northrup King NK 140	89.8	49.0	75.0	128.3	0	0	0.2	4.0	4.0
Steckleys GG R108	89.8	46.0	70.9	120.8	2	1	0.0	2.5	3.0
Steckleys GG R103	89.7	45.0	71.2	126.8	1	3	0.0	3.5	3.3
Steckleys GG Exp. R113	88.3	46.5	71.6	99.3	8	15	0.3	2.3	2.3
AMAK R10	87.2	45.0	72.0	122.3	2	3	0.0	3.3	3.0
Pfister PAG 435S	85.5	46.3	70.0	132.0	2	0	0.4	4.0	3.0
DeKalb C44a	85.2	45.5	71.5	121.5	0	1	0.2	5.0	3.5
Dwarf Kafir 44-14	83.6	50.0	71.0	128.3	0	0	0.4	2.0	3.0
Midland	83.3	47.3	74.0	147.5	1	1	0.0	2.0	3.0
Plainsman	80.7	43.3	71.7	140.0	3	2	0.0	2.0	3.0
Garst & Thomas Med. Early Mat.	79.9	55.3	73.2	113.8	9	1	1.8	4.8	4.3
Martin	79.0	44.5	71.1	126.5	2	3	0.0	3.8	3.0
DeKalb X-49	78.8	46.5	72.2	112.8	1	0	0.2	5.0	3.0
Westland	73.4	41.5	67.6	139.5	0	0	0.0	2.3	2.3
Mean	95.8	48.1	73.1	125.5	4	2	1.1	3.0	3.2

Differences in yield between any two entries of less than 9.5 bushels are not considered significant.

Table 11 1959 Summary of the Grain Sorghum Tests Conducted at Columbia, Edina, and Spickard, Missouri. (Exp. S70, S73, and S74.)

Hybrid or Variety	Acre Yield	Plant Height	Thresh-ing	Plants Per 40 Ft. Row	Lodg-ing	Head	
						Compact-ness	Exsertion
	Bu.	Inch	%	No.	%	1-5	1-5
DeKalb F63	93.7	47.9	73.6	107.0	14.4	3.5	2.8
DeKalb D55	92.9	51.1	74.3	114.6	24.7	2.7	2.8
Kansas 701	92.9	50.1	74.6	124.9	26.9	1.7	2.9
DeKalb D50a	91.3	53.4	75.4	101.9	17.7	5.0	3.3
Northrup King NK 210	89.1	48.6	71.9	114.1	11.2	2.2	3.1
Steckleys GG R106	89.0	46.4	72.9	111.7	15.6	2.7	2.9
Pfister PAG 515S	88.2	46.1	71.6	100.2	7.3	2.0	2.6
Frontier 410B	87.2	45.7	73.9	111.2	4.9	1.9	2.9
Steckleys GG R111	85.7	46.2	72.0	115.5	15.0	2.8	3.0
AMAK R12	85.6	46.1	72.0	107.0	7.7	2.0	2.7
Steckleys GG 107	85.5	47.1	73.9	121.2	10.2	2.3	3.4
RS 610	84.9	48.6	71.0	117.8	13.3	2.5	2.8
DeKalb E56a	84.5	46.4	70.3	113.7	11.7	4.9	2.8
DeKalb F62a	84.5	45.6	72.8	99.9	10.4	4.7	2.9
RS 650	84.2	45.3	74.1	96.8	5.3	2.0	2.4
Kansas 603	83.7	50.0	73.9	111.5	29.7	2.2	3.3
Northrup King NK 230	83.3	45.6	71.1	119.3	6.2	2.6	2.9
Steckleys GG 112	83.0	48.2	73.7	112.5	16.5	2.0	3.2
Frontier 400B	82.6	48.0	74.4	102.7	6.3	2.2	2.9
Steckleys GG R103	80.2	44.9	72.7	116.7	5.6	3.0	2.9
RS 608	80.1	44.7	73.4	112.7	5.7	2.7	3.0
RS 590	79.2	48.4	74.1	88.9	9.2	2.4	2.9
Kansas 602	79.0	46.4	72.9	117.2	9.2	2.0	3.2
DeKalb C44a	78.8	45.3	72.1	108.8	10.7	4.5	2.8
RS 661	78.1	45.4	71.8	82.6	4.5	2.5	2.7
Steckleys GG R108	76.7	44.3	74.1	99.7	5.9	2.4	2.6
AMAK R10	75.4	43.6	72.1	107.2	5.4	2.7	2.9
Garst & Thomas Med. Mat.	74.5	44.1	73.2	102.1	3.4	1.7	2.8
Redbine 60	73.7	46.2	72.1	123.9	17.6	3.8	3.0
Pfister PAG 435S	73.6	45.1	74.2	105.7	8.7	3.2	2.8
Midland	71.4	45.5	72.5	133.2	21.6	1.8	2.7
Northrup King NK 140	71.1	47.7	74.9	111.5	8.3	3.8	3.2
Redlan	70.4	46.2	73.5	100.4	9.4	2.0	2.3
Plainsman	69.7	41.7	70.1	119.4	7.8	1.8	2.7
DeKalb X-49	69.2	45.7	70.0	97.0	4.7	5.0	2.9
Dwarf Kafir 44-14	67.3	47.4	69.1	115.3	20.4	1.9	3.1
Garst & Thomas Med. Early Mat.	63.3	54.2	75.4	101.2	9.3	3.9	4.2
Steckleys GG Exp. R113	62.9	44.6	72.1	76.1	10.7	2.3	1.8
Martin	62.8	43.9	72.4	110.2	9.2	3.3	2.8
Westland	59.5	41.8	68.3	110.7	3.6	2.2	2.3
Mean	79.2	46.6	72.7	108.6	11.1	2.8	2.9

Table 12 1959 Performance Record for the Grain Sorghum Tests Conducted in South Missouri. (Columbia, Sikeston and Pierce City).

Hybrid or Variety	Acre Yield	Plant Height	Planting to 50% Bloom	Threshing	Plants Per 40 Ft. Row	Lodging	Head	
							Compactness	Exsertion
	Bu.	Inch	Days	%	No.	%	1-5	1-5
Lindsey 788	70.0	47.0	69.9	74.2	104.9	13.6	2.9	3.1
Northrup King NK 210	68.4	47.0	63.5	73.8	104.9	4.6	2.2	3.0
Pfister PAG 605S	67.3	47.2	67.0	76.9	96.6	4.0	3.3	2.5
AMAK R12	66.8	43.4	66.4	73.9	95.3	7.1	1.9	2.1
Kansas 701	65.4	49.3	70.7	74.3	102.0	6.7	2.7	2.7
Frontier 400B	64.5	44.9	64.0	74.5	96.4	2.3	2.7	2.6
Pfister PAG 515S	64.3	44.1	66.2	73.2	88.4	6.4	2.1	2.2
Pfister PAG 625S	64.0	42.7	68.0	73.8	103.9	2.5	2.0	2.5
RS 610	63.7	45.9	63.6	73.7	100.5	8.4	2.7	2.5
Frontier 410B	63.5	43.6	65.8	75.0	102.5	6.8	2.3	2.7
DeKalb F63	61.8	46.3	68.2	73.5	98.1	4.0	3.5	2.7
DeKalb D55	61.7	47.5	64.9	72.0	100.2	26.7	2.6	2.2
Northrup King NK 230	60.6	43.5	64.9	74.2	106.5	9.1	2.9	2.5
RS 650	60.3	43.0	65.9	75.8	87.5	11.6	2.7	2.1
Kansas 602	59.8	44.0	67.6	73.4	99.9	15.7	2.7	2.7
DeKalb C44a	59.6	41.6	64.3	72.3	97.9	22.6	3.5	2.3
Combine Kafir 60	57.9	46.0	66.5	76.7	98.4	1.3	1.8	2.4
RS 608	57.6	41.3	63.8	73.6	99.6	6.8	2.6	2.5
Kansas 603	56.3	48.6	67.4	75.2	99.8	19.3	3.3	3.4
Redlan	55.7	44.8	70.1	73.9	101.5	11.9	2.5	2.4
DeKalb D50a	55.1	48.9	62.8	69.8	95.7	34.5	4.2	2.8
Garst & Thomas Med. Mat.	55.1	41.2	66.0	73.3	91.6	3.3	2.4	2.2
DeKalb F62a	54.8	44.9	65.7	73.1	90.8	20.6	4.5	2.5
AMAK R10	54.1	41.7	64.0	72.2	98.9	4.6	2.8	2.6
DeKalb X-49	53.4	43.8	63.7	70.7	86.2	1.6	4.9	2.8
MFA 105 day X 3	53.0	43.0	64.7	74.0	85.4	2.8	2.5	2.5
RS 590	52.0	45.4	64.7	74.3	83.4	11.9	2.9	2.7
Caprock	50.7	40.7	70.1	69.9	91.5	1.7	2.9	1.7
RS 661	49.7	43.0	66.1	73.7	83.2	16.2	3.0	2.5
Plainsman	49.2	40.5	69.5	70.5	105.3	5.5	2.7	2.8
Northrup King NK 140	46.2	44.0	62.4	74.4	100.4	16.1	3.5	3.2
MFA 100 day X 3	46.1	45.8	65.4	74.7	75.4	14.1	3.0	2.3
Garst & Thomas Med. Early Mat.	46.0	52.4	60.7	74.6	94.7	5.3	3.8	3.8
Midland	44.9	43.1	65.2	71.4	103.8	6.7	2.1	2.3
DeKalb E56a	43.5	44.0	65.2	69.0	99.2	29.7	4.0	2.3
Dwarf Kafir 44-14	41.9	46.0	70.6	67.6	100.4	11.1	2.5	2.8
Westland	41.5	38.5	67.0	71.0	102.0	10.4	2.8	2.1
Martin	38.8	42.5	65.9	75.9	103.9	26.5	3.5	2.8
Redbine 60	38.8	43.4	65.2	69.7	106.1	27.5	3.4	2.7
Mean	55.4	44.5	66.0	73.2	97.0	11.3	2.9	2.6

Table 13 1959 Summary of Performance Records for Hybrids and Varieties Tested at Columbia, Sikeston, Pierce City, Edina and Spickard, Missouri. Exp. S70, S71, S72, S73 and S74.

Hybrid or Variety	Acre Yield	Plant Height	Threshing	Plants Per 40 Ft. Row	Lodging	Head	
						Compactness	Exsertion
	Bu.	Inch	%	No.	%	1-5	1-5
Kansas 701	80.4	50.2	75.1	117.3	21.5	2.3	3.0
DeKalb F63	78.0	47.6	74.2	103.7	11.6	3.5	2.9
Northrup King NK 210	77.5	47.4	73.5	108.6	9.8	2.3	3.0
Pfister PAG 515S	77.2	45.2	73.3	97.4	8.3	2.1	2.5
DeKalb D55	77.1	49.4	73.7	108.7	23.6	2.7	2.6
AMAK R12	75.6	44.8	73.2	102.5	8.9	2.0	2.4
Frontier 410B	74.1	44.9	75.0	108.2	7.8	2.2	2.9
Frontier 400B	72.6	46.3	74.9	99.7	5.9	2.5	2.7
RS 610	72.4	46.9	72.9	108.5	13.7	2.6	2.6
RS 650	71.1	44.0	75.2	93.7	9.2	2.5	2.3
DeKalb D50a	70.5	51.2	72.9	99.0	28.7	4.5	3.0
Northrup King NK 230	69.8	44.5	73.0	114.0	10.5	2.8	2.9
Kansas 603	68.8	49.6	74.7	107.3	29.9	2.8	3.4
RS 608	68.5	43.1	74.2	106.0	7.4	2.6	2.7
DeKalb F62a	66.9	45.2	73.3	96.0	16.3	4.6	2.8
DeKalb C44a	66.4	43.7	72.6	104.2	18.4	4.1	2.7
Kansas 602	66.2	45.7	73.1	109.5	15.1	2.5	3.1
RS 590	64.8	47.0	74.4	88.2	11.6	2.7	2.8
AMAK R10	63.7	42.9	72.5	103.1	6.6	2.8	2.7
Garst & Thomas Med. Mat.	63.4	42.9	73.8	97.4	3.9	2.2	2.6
RS 661	63.3	44.5	72.7	86.5	12.0	2.8	2.7
DeKalb E56a	62.3	45.4	70.5	107.0	24.9	4.4	2.7
Redlan	62.0	45.8	74.2	98.8	12.9	2.2	2.5
DeKalb X-49	61.2	44.8	71.2	94.0	3.9	4.9	2.9
Plainsman	57.5	41.7	70.6	111.8	8.4	2.4	2.7
Midland	57.1	44.6	72.4	122.3	18.2	1.9	2.5
Northrup King NK 140	56.5	45.7	74.6	106.4	14.9	3.6	3.2
Redbine 60	53.7	45.0	71.0	113.3	27.7	3.6	2.9
Dwarf Kafir 44-14	53.3	46.9	68.7	108.4	19.3	2.3	3.0
Garst & Thomas Med. Early Mat.	52.1	53.3	74.3	98.3	8.1	3.8	3.9
Martin	48.7	43.6	74.4	106.6	22.4	3.4	2.9
Westland	48.1	40.6	70.2	107.2	8.9	2.7	2.5
Mean	65.7	45.8	73.1	104.2	14.1	2.9	2.8

Table 14 Two Year Summary of Performance Records for the Sorghum Tests Conducted Near Columbia, Sikeston, and Pierce City, Missouri. (1958 and 1959).

Hybrid or Variety	Acre Yield	Planting to 50% Bloom	Lodging
	Bu.	Days	%
AMAK R12	88.6	69.5	4.2
RS 610	83.9	66.8	4.2
DeKalb D50a	80.5	66.3	17.6
Pfister PAG 605S	79.2	69.3	2.2
Pfister PAG 515S	78.2	69.0	3.2
AMAK R10	78.0	66.6	2.3
DeKalb D55	76.6	67.8	13.9
RS 608	75.0	67.4	3.4
RS 650	75.0	68.2	5.8
Redlan	75.0	72.6	6.0
Garst & Thomas Med. Mat.	73.0	68.6	1.6
RS 590	71.8	67.8	6.0
Northrup King NK 140	71.6	66.1	8.5
Garst & Thomas Med. Early Mat.	70.6	66.0	2.7
Northrup King NK 230	70.4	68.4	4.6
DeKalb E56a	70.2	68.0	14.9
Martin	66.1	69.0	13.3
Plainsman	65.1	70.2	2.8
Redbine 60	60.7	67.8	13.8
Westland	59.6	68.4	5.2
Midland	55.4	68.2	3.4
Mean	72.6	68.2	6.6

Table 15 Summary of a Weekly Sorghum Sampling Study Conducted in 1959. Samples Were Taken at the University South Farm Near Columbia, Missouri. Date of Planting, June 1.

	Twenty-Foot Row						6-Head Sample				
	Weight				Moisture		Thresing		Moisture		
									Air-dry Basis		
Date Harvested	Green Lbs.	Air-dry Lbs.	Diff. Lbs.	By Diff. %	Steinlite After Drying %	Steinlite + Air-dry %	Green %	Air-dry %	Whole Head %	Stems %	Grain %
Aug. 22	10.5	4.9	5.6	53.4	4.0	57.4	89.1	90.0	58.9	63.2	58.4
Aug. 29	12.9	6.9	6.0	46.5	4.0	50.5	89.7	92.1	46.1	58.7	44.6
Sept. 5	13.7	8.9	4.8	35.0	4.0	39.0	88.7	92.1	39.6	58.9	37.2
Sept. 12	12.8	8.9	3.9	30.5	4.0	34.5	85.5	89.7	30.3	50.8	26.8
Sept. 19	11.3	9.3	2.0	17.7	4.0	21.7	86.0	90.5	21.0	46.3	16.9
Sept. 26	13.0	8.5	4.5	34.6	4.0	38.6	85.8	91.2	32.5	58.3	28.3
Oct. 3	12.1	9.4	2.7	22.3	4.0	26.3	86.3	92.3	23.5	56.9	18.2
Oct. 10	11.4	9.0	2.4	21.1	4.0	25.1	84.2	90.9	18.0	52.9	11.4
Oct. 17	10.0	8.5	1.5	15.0	4.0	19.0	86.4	89.2	14.3	32.3	11.5
Oct. 24	9.3	8.2	1.1	11.8	4.0	15.8	84.7	87.4	13.7	28.6	11.0
Oct. 31	10.8	8.2	2.6	24.1	4.0	28.1	83.6	89.6	18.2	47.9	12.3
Nov. 7	8.0	7.2	0.8	10.0	4.0	14.0	89.6	91.9	7.9	28.9	5.4
Mean	10.7	8.2	3.2	26.8	4.0	30.8	86.6	90.6	27.0	48.6	23.5

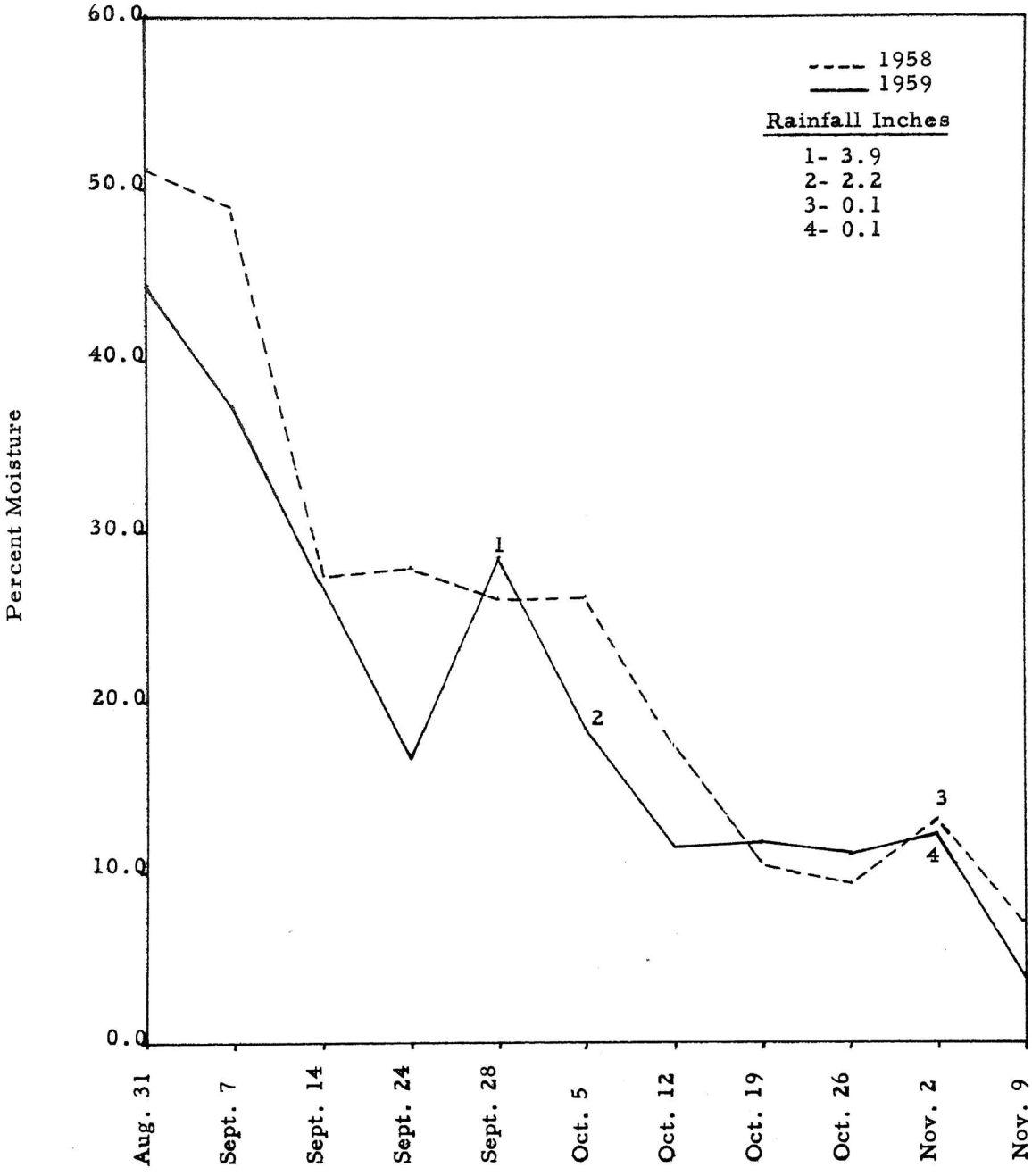


Figure 2 Percent Moisture in Sorghum Grain from a Sampling Study Conducted at Weekly Intervals in 1958 and 1959 at the University South Farm Near Columbia, Missouri.