Results of the

KENTUCKY GRAIN SORGHUM PERFORMANCE TESTS 1962

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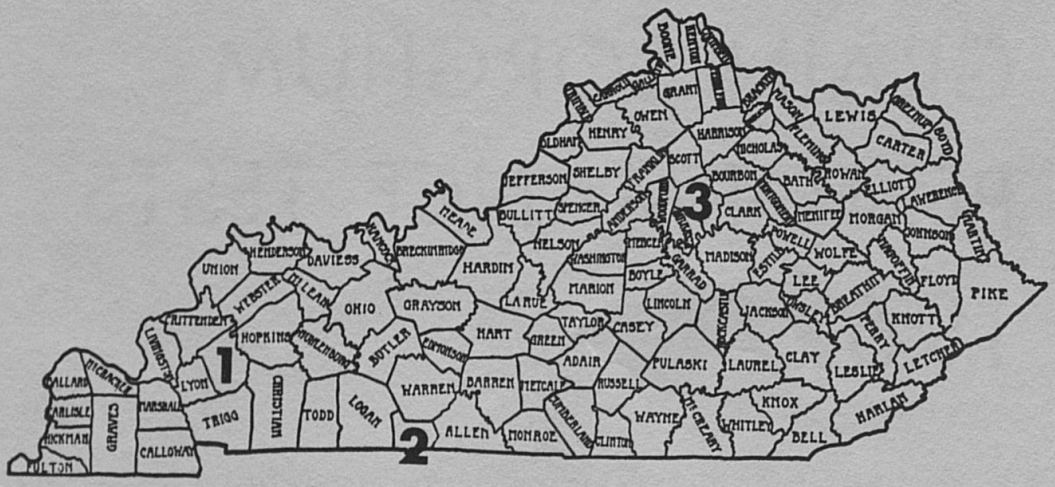
LEXINGTON

LOCATION OF THE 1961 GRAIN
SORGHUM PERFORMANCE TESTS



	Location	Fertilizer applied	Row Spacing	Date Planted	Date Harvested
1.	Princeton	400 lb super-phosphate 40 lb N	42"	May 16	Sept 28
	Cooperator: Western Ky. Substation				
2.	Franklin	Test not harvested	28"	May 25	
	Cooperator: Jernigan Bros.				
3.	Lexington	400 lb 12-12-12	40"	May 26	Sept 23
	Cooperator: Ky. Agr. Exp. Sta.				

RESULTS OF THE KENTUCKY GRAIN SORGHUM PERFORMANCE TESTS - 1961

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The objective of the Kentucky Grain Sorghum Performance Test is to provide an estimate of the relative performance of grain sorghum hybrids and varieties.

This report presents yield and other agronomic data obtained from grain sorghum plantings made at various locations in the state. The grain sorghum tests consisted of 18 hybrids and 7 varieties. Each hybrid or variety was planted in 2-row plots 10 feet long in each of 4 replications.

When tests are grown near highly populated areas, which serve as roosting places for birds, they are more subject to attack by birds than they are in open fields. The test at Lexington was harvested early to avoid damage by birds and eliminate the necessity of bagging or standing guard with a shotgun.

Only one replication of the test at Franklin was harvested because of heavy infestation of foxtail in the remainder of the test. Individual plot data indicate yields were well over the 100 bushel per acre level.

Average yields for the tests at Princeton and Lexington were 94.7 and 119.8 bushels per acre, respectively. The average yield for both locations was 107.3 bushels per acre.

The following tables present three-year and one-year summaries for Princeton and Lexington. Data for results at Franklin, Ky. are available in previous reports.

EXPLANATION OF TERMS USED IN THIS REPORT

1. Yield. Yields of grain sorghum are reported as bushels per acre of threshed grain at 13.0 percent moisture and 56 pounds per bushel. Adjustments were made for bird damage and for significant variations in stand.

2. Moisture. Samples for moisture determinations were taken from the bulked grain of all replications.

3. Height. The distance from the base of the plant to the top of the plant is reported in inches.

4. Head Exsertion. The distance between the top leaf and the base of the head. This characteristic is reported as G - good, F - fair, and P - poor. Varieties with good head exsertion are more easily combined because less plant material will be passed through the combine.

5. Lodging. Plants leaning at an angle of more than 30 degrees from the vertical are considered lodged.

6. Test Weight. Test weight or weight per bushel is one of the quality factors used in determining the grade that is assigned in commercial marketing of grain. The higher the test weight, the higher the market value unless the grain is down-graded by another factor.

7. Date Flowered. The number of days after July 1 when 50 percent of the heads have flowered.

8. L.S.D. The abbreviation "L.s.d." means least significant difference. Two varieties differing in yield by less than the L.s.d. cannot be said to differ in yield in that particular test if one wishes to be correct at least 95 percent of the time.

9. Head Type. Heads are classed as O-open, I-intermediate or C-compact. Open type heads are more desirable since they are less likely to mold and harbor insects.

VARIETIES AND HYBRIDS TESTED

Varieties	
Martin	Combine Shallu
Redbine 58	Caprock
Plainsman	Westland
Midland	

Hybrids	Source of Hybrids
P.A.G.515	Pfister Associated Growers, Inc., Aurora, Ill. and Huntsville, Ala.
Texas 601 Texas 611 Texas 620	Texas Agricultural Exp. Substation Lubbock
RS 501 RS 590 RS 608 RS 610 RS 650	Nebraska Agricultural Experiment Station, Lincoln.
C-44a C-45 D-50a D-55 E-56a F-63	DeKalb Agricultural A'ssn, DeKalb, Ill.
Frontier 400C Frontier 400F Frontier 410C	Frontier Hybrids, Inc. Scott City, Kansas

Table 1. Three-year summary of performance of grain sorghum grown at Princeton, Ky. 1959-61

Hybrid or Variety	Yield Bu/acre	% Mois	Plant height inches	Head Type	Test weight lb/bu
HYBRID					
P.A.G. 515	56.7		46	C	56.6
RS 501	60 4[1]/		50	SC	58.3[1]/
RS 590	75.6		46	C	57.8
RS 608	80.1		42	C	56.0
RS 610	82.7		46	C	55.7
RS 650	76.8		41	C	57.0
Texas 601	84.7		47	C	58.2
Texas 611	82.4		52	C	58.6
Texas 620	82.4		48	C	57.8
Hybrid Av.	75.8		46		57.3
VARIETY					
Caprock	76.8		40	C	55.1
Combine Shallu	62.1		48	O	59.5
Martin	75.0		43	SC	59.6

Heads were harvested and air-dried before threshing in 1959 and 1960

Midland	60.1		39	C	56.1
Plainsman	67.4		37	C	56.2
Redbine 58	72.4		44	SC	58.3
Westland	54.5		38	C	56.7
Variety Av.	66.9		41		57.4
Average	71.9		44		57.3

1/ Two-year data

Heads were harvested and air-dried before threshing in 1959 and 1960

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Table 2. Three-year summary of performance of grain sorghum grown at Lexington, Ky. 1959-61

Hybrid or Variety		Yield Bu/acre	% Mois	Plant height inches	Date Flowered	Test weight lb/bu[1/]
HYBRID						
P.A.G.	515	114.7	22.6	51	37	57.8
RS	501	98.8[1/]	20.2	62[1/]	28	--
RS	590	101.1	22.9	52	34	57.4
RS	608	103.5[1/]	21.5	48	32	58.6
RS	610	118.1[1/]	20.2	51	32	57.7
RS	650	75.4	19.8	48	35	55.3
Texas	601	92.0	22.4	53	35	59.4
Texas	611	100.6	23.6	56	36	59.2
Texas	620	105.4[1/]	21.8	54	34	58.2
Hybrid Av.		101.1	21.7	53	34	58.0
VARIETY						
Caprock		81.2	24.8	46	38	56.1
Combine Shallu		86.1	24.0	56	40	60.7
Martin		85.4[1/]	18.5	48	33	57.9

Midland	76.9[1/]	17.4	45	33	56.4
Plainsman	80.7	24.6	45	38	54.8
Redbine 58	82.4	20.5	50	33	58.7
Westland	70.8	18.2	43	33	57.4
Variety Av.	80.5	21.1	48	35	57.4
Average	92.1	21.4	51	34	57.7

1/ Two year data

Table 3. Performance of grain sorghum at Princeton, Ky. 1961

Hybrid or Variety	Yield Bu/acre	% Mois	Plant height inches	Head type	Head Exser-tion	Test weight lb/bu
HYBRID						
DeKalb:						
C-44a	108.0	12.5	50	SC	F	57.6
C-45	86.8	12.4	48	SC	F	58.5
D-50a	131.0	14.2	56	SC	G	59.6
D-55	128.2	10.7	60	C	O	59.4
E-56a	104.2	14.2	53	SC	G	57.2
F-63	110.0	15.3	57	SC	F	59.1
Frontier 400-C	97.0	13.8	52	C	F	58.6
Frontier 410-C	77.6	12.0	51	C	F	57.8
Frontier 400-F	97.1	14.2	49	C	F	58.9
P.A.G. 515	111.1	12.2	52	C	F	58.3
RS 501	82.0	13.2	57	SC	G	59.6
RS 590	96.5	14.0	54	C	F	60.0
RS 608	97.4	11.5	51	C	F	58.6
RS 610	94.7	11.9	52	C	F	58.6
RS 650	82.1	13.2	47	C	F	58.7
Texas 601	103.0	12.7	54	C	G	59.3
Texas 611	107.8	14.3	60	C	F	60.9
Texas 620	100.2	13.7	52	C	G	59.2
Hybrid Av.	100.8	13.1	53			58.9
VARIETY						
Caprock	85.7	14.3	45	C	F	57.4
Combine Shallu	62.3	14.9	56	O	G	61.2
Martin	92.0	10.9	52	SC	G	61.0
Midland	63.2	13.7	42	C	F	58.3
Plainsman	92.0	12.7	43	C	F	57.0
Redbine 58	91.1	13.3	54	SC	G	60.6
Westland	67.4	13.6	43	C	F	58.2
Variety Av.	79.1	13.3	48			59.1
Average	94.7	13.2	52			58.9

Table 4. Performance of grain sorghum at Lexington, Ky.1961

Hybrid or Variety	Yield Bu/acre	% Mois	Plant height inches	Head type	Date flowered
HYBRID					
DeKalb:					
C-44a	142.5	22.8	53	0	41
C-45	156.6	16.7	53	0	42
D-50a	149.1	19.8	63	0	42
D-55	153.8	23.8	60	0	45
E-56a	125.3	21.8	58	0	48
F-63	162.2	13.7	60	0	54
Frontier 400-C	131.8	25.0	59	SC	41
Frontier 410-C	127.4	25.8	57	C	48
Frontier 400-F	120.4	30.7	55	SC	46
P.A.G. 515	142.0	28.8	59	SC	49
RS 501	95.7	15.6	65	0	36
RS 590	121.8	24.3	57	SC	46
RS 608	121.7	24.5	56	SC	40
RS 610	138.9	19.6	58	SC	42
RS 650	79.0	19.0	54	C	48
Texas 601	107.6	24.2	59	SC	46
Texas 611	109.1	26.3	61	SC	47
Texas 620	111.8	24.1	57	SC	48
Hybrid Av.	127.6	22.6	58		45
VARIETY					
Caprock	110.6	27.1	55	SC	47
Combine Shallu	96.2	29.2	64	0	54
Martin	95.2	20.6	54	SC	42
Midland	82.8	16.0	50	SC	40
Plainsman	102.5	29.3	50	SC	47
Redbine 58	100.9	20.3	57	SC	42
Westland	100.9	15.6	47	SC	43
Variety Av.	98.4	22.6	54		45
Average	119.4	22.6	57		45

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