

*Results of the*  
KENTUCKY  
GRAIN SORGHUM  
PERFORMANCE TEST  
1964

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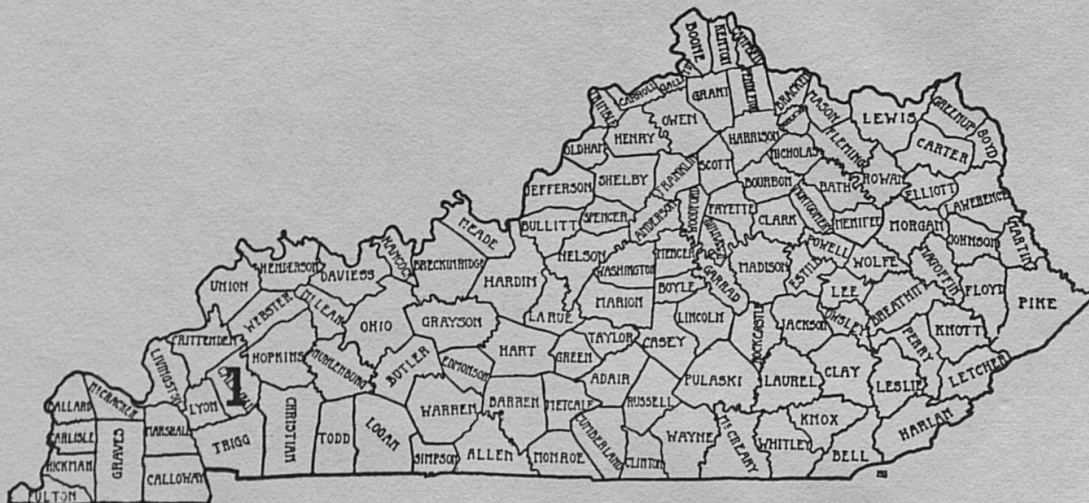


PROGRESS REPORT 142

(FILING CODE: 1-1)

UNIVERSITY OF KENTUCKY  
AGRICULTURAL EXPERIMENT STATION  
DEPARTMENT OF AGRONOMY  
LEXINGTON

LOCATION OF THE 1964 GRAIN  
SORGHUM PERFORMANCE TEST



<u>Location</u>	<u>Fertilizer applied</u>	<u>Row Spacing</u>	<u>Date Planted</u>	<u>Date Harvested</u>
1. Princeton	30# N June 3 Topdressed	42"	May 6	Sept 23

Cooperator: Western Ky.  
Substation

pH 7.5; available P 66 (High)

available K 78 (Low)

<u>Rainfall:</u>		
	April	2.65"
	May	1.78"
	June	1.82"
	July	4.28"
	August	4.58
	September	6.82"



RESULTS OF THE KENTUCKY GRAIN SORGHUM  
PERFORMANCE TEST - 1964

J. F. Shane and Leo A. Link

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 a grain sorghum planting made at Princeton, Kentucky. The grain sorghum test consisted of 18 hybrids and 7 varieties. Each hybrid or variety was planted in 2-row plots 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. Field data for the test were not adjusted for the minor damage which did occur.

The average bushel per acre yield for the test was 73.8 bushels. The average yield for the hybrids was 74.6 bushels per acre and that for the varieties 71.9 bushels per acre. Temperatures in excess of 100°F for several days during flowering may have had an effect on seed set.

The 1964 data are presented in Table 1 and that for the two- and three-year summary in Tables 2 and 3.

#### 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 are made for significant variations in stand.
2. Moisture. Grain was dried to a uniform moisture content.
3. Height. The distance from the base of the plant to the top of the plant is reported in inches.
4. Lodging. Plants leaning at an angle of more than 30 degrees from the vertical are considered lodged.
5. 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.
6. Head Type. Plants with the most open heads are given a rating of 1 and those with the most compact heads a rating of 5.



VARIETIES AND HYBRIDS TESTED

Varieties

Martin	Combine Shallu
Redbine 58	Caprock
Plainsman	Westland
Midland	

Hybrids

Source of Hybrids

Texas 601	Texas Agricultural Experiment
Texas 611	Substation, Lubbock
Texas 620	
RS 608	Nebraska Agricultural Experiment
RS 610	Station, Lincoln
RS 616	
RS 630	
BR-60	DeKalb Agricultural Association
E-57	DeKalb, Illinois
F-64	
Frontier 401	Frontier Hybrids, Inc.
	Scott City, Kansas
NK 212	Northrup, King Co.
NK 222	1500 Jackson St. N. E.
NK 255	Minneapolis 13, Minnesota
NK 275	
Kiowa	Paymaster Seed Farms
	Box 1632
	Plainview, Texas
AKS 614	Agricultural Experiment Station
	Fayetteville, Arkansas
Excel 505	Excel Seed Company
	107 Yucca Terrace
	Plainview, Texas

Table 1. Summary of Grain Sorghum Test, Princeton, 1964

Variety	Bu/ acre	Plant height inches	Head type rating
DeKalb BR-60	119.4	40	3
NK 275	101.0	38	3
Frontier 401	99.1	29	2
AKS 614	97.7	40	1
NK 222	89.3	31	2
Texas 620	87.5	36	3
DeKalb E-57	84.8	40	2
RS 608	84.6	35	3
Martin	83.9	34	3
RS 616	83.4	28	5
NK 255	83.1	30	2
NK 212	81.4	35	3
Caprock	79.4	31	5
Plainsman	79.1	30	5
Westland	74.9	36	5
Redbine 58	74.4	35	3
Midland	69.9	38	5
RS 610	68.2	39	5
Texas 601	62.0	38	3
Excel 505	57.7	39	3
Texas 611	54.6	43	3
Kiowa	43.9	39	3
Combine Shallu	41.8	40	1
RS 630	25.0	56	5
DeKalb F-64	19.5	45	4
Average	75.1	37	
L.S.D. (.05)	12.4		



Table 2.- Two-year summary at Princeton, Ky. 1963-64

Hybrid or Variety	Yield Bu/Acre	Plant height inches	Head type rating
AKS 614	101.8	40	1.0
DeKalb E-57	97.6	42	1.5
DeKalb F-64	66.3	48	3.0
Frontier 401	94.8	32	2.5
NK 222	96.5	34	2.5
Kiowa	77.7	42	4.0
RS 608	90.2	38	3.0
RS 610	92.0	42	5.0
RS 616	90.8	30	4.0
Texas 601	88.9	40	4.0
Texas 611	84.8	45	4.0
Texas 620	84.7	38	4.0
Caprock	79.2	34	5.0
Combine Shallu	69.8	43	1.0
Martin	87.0	36	3.0
Midland	84.6	39	5.0
Plainsman	86.3	33	5.0
Redbine 58	85.8	37	3.5
Westland	78.8	35	5.0
Average	86.2	38	3.5

Table 3.-Three-year summary at Princeton, Ky. 1962-64

Hybrid or Variety	Yield bu/acre	Moist. <sup>1/</sup> %	Plant height inches	Head type rating	Test <sup>1/</sup> weight lbs/bu
NK 222	98.6	13.1	41	2.3	53.3
RS 608	97.5	13.0	45	3.0	54.0
RS 610	99.2	13.2	48	4.3	53.8
Texas 601	92.0	13.7	48	4.0	55.6
Texas 611	92.4	14.0	50	4.3	56.1
Texas 620	85.2	13.7	45	3.7	54.3
Caprock	84.8	12.5	41	4.7	49.8
Combine Shallu	79.6	13.0	49	1.0	54.5
Martin	96.0	13.4	44	3.0	56.6
Midland	85.9	13.0	48	5.0	51.5
Plainsman	79.7	12.9	41	5.0	49.6
Redbine 58	90.3	12.8	45	3.0	53.9
Westland	73.7	13.1	39	4.7	52.4
Average	88.8	13.2	45	3.7	53.5

<sup>1/</sup> Two-year data

(7)