Grain Sorghum

1995 Missouri Crop Performance

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MISSOURI CROP PERFORMANCE

1995

GRAIN SORGHUM

This report is a contribution of the Department of Agronomy, Plant Science Unit, University of Missouri Agricultural Experiment Station. The work received significant support through fees paid by the companies submitting hybrids for evaluation.

The University of Missouri began its performance testing program for grain sorghum hybrids in 1958. The number of commercial entries in the program increased from 40 in 1958 to 134 in 1982. There were 79 hybrids in the program in 1995.

The large number of commercial hybrids available makes selection of a superior hybrid difficult. To select intelligently, producers need a reliable, unbiased, up-to-date source of information that will permit valid comparisons among available hybrids. The objective of the University of Missouri's performance testing program is to provide this information. The tests are conducted under as uniform conditions as possible. Small plots are used to reduce the chance of soil and climatic variations occurring from one plot to another. Results obtained should aid the individual grower in judging the relative merits of many of the commercial grain sorghum hybrids available in Missouri today.

COMPARING HYBRIDS

The performance of a hybrid cannot be measured with absolute precision. Uncontrollable variability is involved in the determination of each yield average. This variability sometimes occurs because the soil is not uniform, but many other conditions may contribute to it. Because variability exists in all field experimentation, statistics are used as a tool to assist in making decisions. The statistical tool used in these trials is the test of least significant difference (L.S.D.). The L.S.D. is quite simple to apply. When two entries are compared and the difference between them is greater than the L.S.D., the entries are judged to be significantly different. Differences smaller than the L.S.D. may have occurred by chance and are judged to be not significant.

Hybrid performance may seem inconsistent from location to location and from year to year because of differences in rainfall, temperature, soil fertility, diseases, insects, and other factors. To obtain an improved estimate of relative hybrid performance, results from more than one location or year should be considered. In this publication, the authors have tried to facilitate comparisons across years and locations.

In each trial, the "top yielding" hybrids have been identified. These hybrids are those that did not yield significantly less than the highest yielding hybrid in the test. They are denoted in the tables by an asterisk (*) next to their yields. Thus, by going down a column, readers can readily identify the highest yielding hybrids in a trial. By going across, readers can evaluate the relative performance of a hybrid during several years or at several locations. From the standpoint of yield, the most desirable hybrids will be those that are among the "top yielding" hybrids (that is, those that have an asterisk) the greatest number of times.

Although yield usually receives first consideration, other agronomic characteristics may be equally important when selecting a grain sorghum hybrid. Moisture content at harvest, stalk strength and resistance to insects and diseases are among the hybrid characteristics that deserve careful consideration. High moisture content at harvest, whether due to later maturity or slow dry-down, may indicate an increased drying requirement. Poor stalk strength or susceptibility to pests may decrease harvestable yield because of lodging or stand loss. Therefore, when selecting a hybrid, producers should also consider the data presented on agronomic characteristics other than yield.

The Missouri Agricultural Experiment Station does not recommend specific hybrids. Farmers growing a new hybrid for the first time should consider the information contained in this report and then grow a small acreage to determine adaptability. This should be the practice for all new hybrids regardless of origin.

EXPERIMENTAL PROCEDURES

Entries. All producers of hybrid seed were eligible to enter hybrids in the 1995 evaluation trials. Participation was voluntary. The testing coordinator exercised no control over which hybrid or how many hybrids were entered. However, to help finance the evaluation program, a fee of $90 per location was charged for each hybrid entered by the seed producer.

Locations. On the basis of geographical characteristics, the state is divided into regions. Grain sorghum hybrid evaluation trials are located in the north-central, southwestern and southeastern regions of the state. In 1995, the locations for these trials were on (1) the E.L. Reed farm near Chillicothe in Livingston County, (2) the Carroll farms near Lentner in Shelby County, (3) the Richard Primus farm near Martinsburg in Audrain County, (4) the Kenny Tevis farm near Hughesville in Pettis County, (5) the Kurt Gretzinger farm near Urich in Clinton County, (6) the Wally Norton farm near Lamar in Barton County, (7) the Tom Shoemaker farm near Oran in Scott County (8) the Tony Jones farm near New Madrid in New Madrid County and (9) the Kenneth Fortner farm near Bernie in Stoddard County. Trial locations are shown on the adjacent map.

Field Plot Design. Each test was arranged in a lattice field plot design with three replications. All plots were four rows wide and 20 feet long. The between-row spacing was 30 inches at all locations. Only the center two rows were harvested to determine yield.

Plot Management. The tests were planted and harvested with equipment designed for small-plot work. Fertilizer was applied at each site at the discretion of the farmer. Herbicides and cultivation were used for weed control and plots were hand weeded as necessary. Management details varied from location to location and are specified on individual yield tables.

Data Recorded. Agronomic characteristics were evaluated at harvest. Head compactness was scored on a scale of 1 to 5. A score of 1 indicates the most compact or tight head, while 5 indicates the most lax or loose head. Lodging was determined by counting the number of culms inclined more than 30 degrees from vertical. This value was converted to a percentage of the total number of culms in each plot. The off-types heads percentage are those heads in the plot rows which have a different head type. Yield was measured in number of bushels per acre at a moisture content of 14.0 percent. An electronic moisture tester was used for all moisture readings. To convert yield to pounds/acre, multiply bushels/acre by 56.

Electronic Accessibility of Data. Results of the Missouri Crop Performance Trials are now available in two forms: this printed Special Report and Missouri's Agricultural Electronic Bulletin Board (AgEBB). Variety test information is accessible from the MAIN MENU of the AgEBB under "CROP PERFORMANCE TESTING". The system number is 314/882-8289. If you need assistance in accessing the system call 314/882-4827 for the system staff's help.

SUMMARY OF RESULTS

Results for each location include data on plant height, head compactness, percent off-type heads, lodging, grain moisture at harvest, and yield adjusted to 14.0 percent moisture.

Significant yield variation was observed among hybrids at each location. Individual hybrid performance across the three north-central, three southwestern and three southeastern locations are summarized in Tables 5, 9, and 13. Average yields and yield ranges for each trial are summarized in Table 1. The spring weather of 1995 was cool and wet delaying planting and causing some emergence problems. Summer rainfall was below normal

for the state, while temperatures remained normal until an early frost halted seed developement on September 22 and 23. Because environmental conditions influence the performance of hybrid sorghums, the reader is encouraged to give more weight to results from several locations or years than to those from a single test.

TABLE 1. 1995 YIELD SUMMARY

LOCATION	NUMBER OF ENTRIES	IRRI-GATED	YIELD (BU/ACRE) RANGE	YIELD (BU/ACRE) AVERAGE	DATA TABLE
Chillicothe	39	No	11- 54	29	2
Lentner	39	No	75- 99	84	3
Martinsburg	39	No	96-131	118	4
Hughesville	42	No	102-142	125	6
Urich	42	No	40-101	68	7
Lamar	42	No	103-123	112	8
Oran	55	No	63-133	91	10
New Madrid	55	No	68-121	98	11
Bernie	55	No	47-111	85	12

An indication of hybrid maturity is moisture content of the grain at harvest. Because high moisture at harvest is generally a disadvantage, growers should give preference to hybrids within a yield group with the lowest moisture content.

TABLE 2. Performance of Grain Sorghum Hybrids evaluated near Chillicothe (Livingston County) on the E.L. Reed Farm (Gerald Stevens, operator) during 1994-95 and near Spickard (Grundy County) on the North Missouri Center during 1993. Yields in 1995 were reduced by frosts on September 22-23.

Planted: 21 June 1995
Harvested: 24 October 1995
Planted Population: 104,500 seeds/A.
Row Spacing: 30 inches
Soil Type: Putnam Silt Loam

Fertilizer: N=100; P_2O_5=30; K_2O=60 lbs./A
Herbicide: Ramrod + Atrazine
Insecticide: None
Previous Crop: Soybean
Soil Test: pH=5.8, OM=3.1%, P=45, K=214

Growing Season Rainfall: May=12.0, June=5.2, July=4.9, Aug.=6.1, Sept.=3.0, TOTAL=31.2"

	1995					Yield (Bu/Acre)			Means	
Brand-Hybrid	Moisture (%)	Plant Ht. (In.)	Off-type Heads (%)	Combactness Score	Lodging (%)	1995	1994	1993	2 Yr.	3 Yr.
Gold World GW 5960	17.2	63	0.0	2.9	0.0	54.3**	141.9*	50.8*	98.1	82.3
Genetic Res. GRI 16977	23.6	63	0.0	3.7	0.0	46.4*	--	--	--	--
Northrup King KS 555Y	18.2	61	0.0	2.7	0.0	46.0*	131.6*	--	88.8	--
Ciba 1607	16.0	62	0.0	4.0	0.0	43.9	--	--	--	--
MFA GS10	18.3	59	0.0	3.6	0.0	41.5	124.4	58.8*	83.0	74.9
Genetic Res. GRI 23977	19.7	62	0.0	4.4	0.0	40.4	--	--	--	--
Cargill 775Y	14.2	60	0.0	3.4	0.0	38.8	--	--	--	--
MFA 660	20.2	64	0.0	4.6	0.0	36.0	111.3	39.0	73.7	62.1
Dekalb DK-45	21.0	66	0.0	4.8	0.0	35.5	--	--	--	--
MFA 650	16.3	62	0.0	3.6	0.0	34.6	129.2*	42.8	81.9	68.9
Northrup King KS 735	22.8	63	0.0	2.2	0.0	34.6	--	--	--	--
Cargill 737	15.3	59	0.0	1.4	0.0	34.6	135.6*	37.8	85.1	69.3
Cargill 575	15.0	60	0.0	3.9	0.0	34.5	130.6*	52.5*	82.6	72.5
Ciba 1616	24.2	64	0.0	2.5	0.0	33.7	124.2	42.2	79.0	66.7
Pioneer Hybrid 8500	17.6	59	0.0	2.9	0.0	33.6	147.7**	37.2	90.6	72.8
Pioneer Hybrid 8522Y	20.0	56	0.0	2.0	0.0	33.4	--	--	--	--
Dekalb DK-54	24.1	66	0.0	3.6	0.0	33.0	131.1*	--	82.1	--
Cargill X19225	19.1	60	0.0	1.9	0.0	31.6	--	--	--	--
Asgrow A531	23.2	65	0.0	4.0	0.0	30.4	136.5*	--	83.5	--
Mycogen 444E	20.6	61	0.0	3.9	0.0	26.6	127.1	33.2	76.9	62.3
ICI 5536	16.2	58	0.0	3.2	0.0	26.3	--	--	--	--
Asgrow A570	20.0	67	0.0	3.2	0.0	25.5	128.9*	--	77.2	--
NC+ 7R37E	19.3	63	0.0	3.6	0.0	24.5	132.8*	--	78.7	--
Cargill 837	21.8	62	0.0	2.1	0.0	24.4	129.5*	43.3	77.0	65.7
MFA 570	18.6	65	0.0	1.9	0.0	24.3	113.3	47.7*	68.8	61.8
Penngrain DR	17.0	60	0.0	2.0	0.0	23.6	--	54.2*	--	--
Dekalb DK-58	21.1	63	0.0	3.9	0.0	23.6	139.4*	19.4	81.5	60.8
Triumph TR474	22.8	66	0.0	2.1	0.0	23.1	137.4*	--	80.3	--
Fontanelle Exp.6300	20.5	59	0.0	3.3	0.0	21.4	--	--	--	--
Fontanelle 5590	23.3	64	0.0	1.7	0.0	21.1	--	43.6	--	--
Pioneer Hybrid 8305	29.7	64	0.0	3.9	0.0	21.0	135.2*	45.4	78.1	67.2
Pioneer Hybrid 8212Y	18.4	59	0.0	3.4	0.0	20.7	120.4	43.1	70.6	61.4
Triumph TR65G	18.4	62	0.0	2.3	0.3	19.7	112.5	44.2	66.1	58.8
Fontanelle 5570	19.4	62	0.0	3.7	0.0	18.6	--	--	--	--
Golden Harvest H-509	15.3	59	0.0	3.3	0.0	16.2	--	--	--	--
Ciba 1655	19.4	60	0.0	2.8	0.0	15.9	131.0*	40.4	73.5	62.4
Triumph TR481	16.2	64	0.0	5.0	0.0	12.8	--	--	--	--
Dekalb DK-55	24.8	65	0.0	5.0	0.3	11.5	141.9*	--	76.7	--
Dekalb DK-56	25.7	65	0.0	4.7	0.0	10.8	--	43.3	--	--
TRIAL AVERAGE	**19.9**	**62**	**0.0**	**3.3**	**0.0**	**28.9**	**129.7**	**41.8**	**79.3**	**66.8**
L.S.D. AT .10[1]	**2.9**	**2**	**NS**	**0.9**	**0.9**	**10.2**	**20.0**	**17.0**		
C.V. %	**10.8**	**2.8**		**20.2**		**25.9**	**10.6**	**25.0**		

[1] LSD for previous years calculated at p = 0.05.
-- Data not available.
** Highest yielding hybrid in the test.
* Hybrid which did not yield significantly less than the highest yielding hybrid in the test.
NS Not significant.

TABLE 3. Performance of Grain Sorghum Hybrids evaluated near Lentner (Shelby County) on the Carroll Farms during 1995.

Planted: 7 June 1995
Harvested: 19 October 1995
Planted Population: 104,500 seeds/A.
Row Spacing: 30 inches
Soil Type: Putnam Silt Loam

Fertilizer: N=120; P_2O_5=50; K_2O=70 lbs./A
Herbicide: Ramrod + Atrazine
Insecticide: None
Previous Crop: Wheat
Soil Test: pH=7.0, OM=2.9%, P=42, K=157

Growing Season Rainfall: May=12.7, June=2.8, July=4.2, Aug.=4.9, Sept.=3.9, TOTAL=28.5"

	1995					Yield (Bu/Acre)			Means	
Brand-Hybrid	Moisture (%)	Plant Ht. (In.)	Off-type Heads (%)	Compactness Score	Lodging (%)	1995	1994	1993	2 Yr.	3 Yr.
NC+ 7R37E	17.6	53	0.0	2.0	0.0	99.3**	--	--	--	--
Dekalb DK-45	18.1	56	0.0	3.3	0.0	97.2*	--	--	--	--
MFA 570	18.1	58	0.0	2.7	0.0	95.9*	--	--	--	--
Genetic Res. GRI 16977	17.7	56	0.0	2.3	0.0	94.3*	--	--	--	--
Mycogen 444E	20.3	50	0.0	2.3	0.8	93.6*	--	--	--	--
Northrup King KS 555Y	15.5	50	0.0	2.7	0.0	90.2*	--	--	--	--
Asgrow A531	18.3	53	0.0	3.0	0.0	89.5	--	--	--	--
Northrup King KS 735	18.6	53	0.0	3.0	0.4	89.4	--	--	--	--
Cargill 837	18.1	54	0.0	2.0	0.0	88.8	--	--	--	--
Pioneer Hybrid 8305	22.0	59	0.0	2.0	0.0	87.7	--	--	--	--
Cargill 575	16.7	52	0.0	3.3	0.0	87.3	--	--	--	--
Gold World GW 5960	14.4	50	0.0	3.7	0.0	87.2	--	--	--	--
Penngrain DR	18.6	49	0.0	2.0	0.0	86.3	--	--	--	--
Ciba 1616	20.4	56	0.0	1.7	0.0	85.3	--	--	--	--
Pioneer Hybrid 8522Y	19.7	49	0.0	2.3	0.0	85.3	--	--	--	--
Golden Harvest H-509	19.2	49	0.0	1.7	0.3	84.5	--	--	--	--
Cargill X19225	18.8	48	0.0	1.7	0.0	84.5	--	--	--	--
Fontanelle 5590	19.7	54	0.0	1.7	0.0	84.3	--	--	--	--
Dekalb DK-54	20.8	59	0.0	2.0	0.0	84.0	--	--	--	--
Dekalb DK-58	20.9	53	0.0	2.7	0.0	83.8	--	--	--	--
Cargill 775Y	17.6	49	0.0	2.3	0.0	83.6	--	--	--	--
MFA GS10	15.6	48	0.0	4.0	0.0	83.2	--	--	--	--
Pioneer Hybrid 8500	15.4	48	0.0	3.0	0.0	82.3	--	--	--	--
Dekalb DK-56	20.5	56	0.0	2.7	0.5	82.1	--	--	--	--
Triumph TR474	21.1	58	0.0	1.3	0.4	81.6	--	--	--	--
Genetic Res. GRI 23977	18.6	57	0.0	3.3	0.0	81.5	--	--	--	--
MFA 650	17.6	50	0.0	3.3	0.0	80.4	--	--	--	--
ICI 5536	20.7	50	0.0	2.0	0.0	80.3	--	--	--	--
Fontanelle Exp.6300	22.7	51	0.0	2.0	0.0	80.1	--	--	--	--
Dekalb DK-55	22.9	60	0.0	4.3	0.0	79.3	--	--	--	--
Asgrow A570	19.6	61	0.0	1.7	0.0	78.9	--	--	--	--
Fontanelle 5570	20.8	53	0.0	1.7	0.4	78.5	--	--	--	--
Ciba 1607	18.7	54	0.0	3.0	0.0	78.1	--	--	--	--
Triumph TR481	22.9	61	0.0	2.7	0.0	78.1	--	--	--	--
Triumph TR65G	20.0	51	0.0	1.7	0.0	78.0	--	--	--	--
Ciba 1655	19.3	49	0.0	1.7	0.0	76.3	--	--	--	--
MFA 660	22.4	60	0.0	3.7	0.4	75.8	--	--	--	--
Cargill 737	15.9	48	0.0	1.3	0.0	75.0	--	--	--	--
Pioneer Hybrid 8212Y	22.2	47	0.0	2.3	0.0	74.8	--	--	--	--
TRIAL AVERAGE	**19.2**	**53**	**0.0**	**2.5**	**0.1**	**84.3**				
L.S.D. AT .10[1]	**1.9**	**3**	**NS**	**0.7**	**0.5**	**9.6**				
C.V. %	**7.5**	**3.9**		**20.0**		**8.3**				

[1] LSD for previous years calculated at p = 0.05.
-- Data not available.
** Highest yielding hybrid in the test.
* Hybrid which did not yield significantly less than the highest yielding hybrid in the test.
NS Not significant.

TABLE 4. Performance of Grain Sorghum Hybrids evaluated near Martinsburg (Audrain County) on the Richard Primus Farm during 1993-95.

Planted: 19 June 1995
Harvested: 18 October 1995
Planted Population: 104,500 seeds/A.
Row Spacing: 30 inches
Soil Type: Mexico Silt Loam

Fertilizer: N=100; P_2O_5=60; K_2O=80 lbs./A
Herbicide: Ramrod + Atrazine
Insecticide: None
Previous Crop: Wheat
Soil Test: pH=6.2, OM=3.4%, P=45, K=187

Growing Season Rainfall: May=10.7, June=3.7, July=2.1, Aug.=3.8, Sept.=2.2, TOTAL=22.5"

Brand-Hybrid	1995 Moisture (%)	1995 Plant Ht. (In.)	1995 Off-type Heads (%)	1995 Compactness Score	1995 Lodging (%)	Yield (Bu/Acre) 1995	Yield (Bu/Acre) 1994	Yield (Bu/Acre) 1993	Means 2 Yr.	Means 3 Yr.
Dekalb DK-45	16.3	62	0.0	4.3	0.0	130.6**	--	--	--	--
Pioneer Hybrid 8305	21.0	65	0.0	1.9	0.0	130.3*	118.9*	90.7*	124.6	113.3
NC+ 7R37E	18.6	58	0.0	2.7	0.0	127.7*	100.6	--	114.2	--
Dekalb DK-58	17.8	60	0.0	3.6	0.0	126.8*	108.6*	96.6*	117.7	110.7
Gold World GW 5960	14.8	58	0.0	3.3	0.0	124.8*	100.6	91.3*	112.7	105.6
Ciba 1616	20.4	64	0.0	2.0	0.0	124.6*	98.1	91.3*	111.4	104.7
Triumph TR474	20.1	65	0.0	1.4	0.0	124.5*	101.0	--	112.8	--
Dekalb DK-55	22.8	66	0.0	5.0	0.0	124.2*	119.8*	--	122.0	--
Triumph TR481	20.7	61	0.0	3.0	0.0	123.8*	--	--	--	--
Mycogen 444E	18.0	59	0.0	3.7	0.0	123.5*	94.4	78.6	109.0	98.8
Fontanelle Exp.6300	18.7	56	0.0	2.3	0.0	121.5*	--	--	--	--
MFA 650	18.9	57	0.0	2.7	0.0	121.2*	108.7*	82.7	115.0	104.2
MFA 570	15.5	60	0.0	2.4	0.0	120.6*	92.0	92.0*	106.3	101.5
Genetic Res. GRI 16977	17.0	61	0.0	2.7	0.0	120.2*	--	--	--	--
Triumph TR65G	16.7	57	0.0	2.0	0.0	119.4*	91.5	104.2*	105.5	105.0
Fontanelle 5570	18.8	59	0.0	2.0	0.0	119.3*	--	--	--	--
ICI 5536	17.1	53	0.0	2.3	0.0	119.0*	--	--	--	--
Golden Harvest H-509	18.7	56	0.0	2.0	0.0	118.9*	--	--	--	--
Penngrain DR	14.6	59	0.0	2.4	0.0	118.8*	--	81.5	--	--
Ciba 1655	21.0	55	0.0	2.0	0.0	118.5*	109.1*	90.0*	113.8	105.9
MFA 660	21.2	65	0.0	4.4	0.0	118.1*	117.7*	73.5	117.9	103.1
MFA GS10	13.7	53	0.0	4.7	0.0	117.3*	85.8	98.2*	101.6	100.4
Cargill X19225	19.3	56	0.0	2.0	0.0	117.1*	--	--	--	--
Genetic Res. GRI 23977	18.2	61	0.0	3.3	0.0	117.0*	--	--	--	--
Fontanelle 5590	18.3	60	0.0	2.0	0.0	116.9*	--	104.3*	--	--
Pioneer Hybrid 8522Y	19.0	54	0.0	2.3	0.0	116.9*	--	--	--	--
Pioneer Hybrid 8500	17.1	57	0.0	1.7	0.0	116.8*	99.6	90.8*	108.2	102.4
Pioneer Hybrid 8212Y	21.0	55	0.0	2.4	0.0	115.2	111.7*	83.5	113.5	103.5
Cargill 575	18.7	56	0.0	2.6	0.0	114.8	112.2*	84.4	113.5	103.8
Asgrow A531	18.2	60	0.0	2.3	0.0	114.1	103.6	--	108.9	--
Northrup King KS 735	16.8	60	0.0	2.7	0.0	113.1	--	--	--	--
Northrup King KS 555Y	17.8	57	0.0	1.6	0.0	113.0	86.6	--	99.8	--
Dekalb DK-54	18.6	65	0.0	2.3	0.0	112.7	122.8**	--	117.8	--
Ciba 1607	19.0	61	0.0	2.7	0.0	112.0	--	--	--	--
Cargill 737	17.4	54	0.0	2.0	0.0	110.1	95.4	101.2*	102.8	102.2
Asgrow A570	16.7	65	0.0	1.4	0.0	107.1	98.3	--	102.7	--
Cargill 837	18.6	57	0.0	2.6	0.0	104.9	98.2	77.5	101.6	93.5
Dekalb DK-56	22.5	59	0.0	2.7	0.0	103.7	--	83.0	--	--
Cargill 775Y	17.2	50	0.0	2.3	0.0	95.8	--	--	--	--
TRIAL AVERAGE	**18.4**	**59**	**0.0**	**2.6**	**0.0**	**117.8**	**103.2**	**87.9**	**110.5**	**103.0**
L.S.D. AT .10[1]	**2.1**	**3**	**NS**	**0.8**	**NS**	**14.1**	**14.3**	**20.7**		
C.V. %	**8.5**	**4.3**		**22.4**		**8.8**	**8.5**	**14.4**		

[1] LSD for previous years calculated at p = 0.05.
-- Data not available.
** Highest yielding hybrid in the test.
* Hybrid which did not yield significantly less than the highest yielding hybrid in the test.
NS Not significant.

TABLE 5. Performance of Grain Sorghum Hybrids evaluated at two north-central Missouri locations (Lentner and Martinsburg) during 1995. **Data from a third location (Chillicothe), was not included because of severe frost damage.**

Lentner	Martinsburg
Planted: 7 June 1995	Planted: 19 June 1995
Harvested: 19 October 1995	Harvested: 18 October 1995
Planted Pop.: 104,500 seeds/A.	Planted Pop.: 104,500 seeds/A.
Row Spacing: 30 inches	Row Spacing: 30 inches
Soil Type: Putnam Silt Loam	Soil Type: Mexico Silt Loam
Growing Season Moisture: 28.5"	Growing Season Moisture: 22.5"

	Lodging (%)			Yield (Bu/Acre)		
Brand-Hybrid	Lentner	Martnsburg	Mean	Lentner	Martnsburg	Mean
Dekalb DK-45	0.0	0.0	0.0	97.2*	130.6**	113.9**
NC+ 7R37E	0.0	0.0	0.0	99.3**	127.7*	113.5*
Pioneer Hybrid 8305	0.0	0.0	0.0	87.7	130.3*	109.0*
Mycogen 444E	0.8	0.0	0.4	93.6*	123.5*	108.6*
MFA 570	0.0	0.0	0.0	95.9*	120.6*	108.2*
Genetic Res. GRI 16977	0.0	0.0	0.0	94.3*	120.2*	107.2*
Gold World GW 5960	0.0	0.0	0.0	87.2	124.8*	106.0*
Dekalb DK-58	0.0	0.0	0.0	83.8	126.8*	105.3*
Ciba 1616	0.0	0.0	0.0	85.3	124.6*	105.0*
Triumph TR474	0.4	0.0	0.2	81.6	124.5*	103.0
Penngrain DR	0.0	0.0	0.0	86.3	118.8*	102.6
Dekalb DK-55	0.0	0.0	0.0	79.3	124.2*	101.8
Asgrow A531	0.0	0.0	0.0	89.5	114.1	101.8
Golden Harvest H-509	0.3	0.0	0.2	84.5	118.9*	101.7
Northrup King KS 555Y	0.0	0.0	0.0	90.2*	113.0	101.6
Northrup King KS 735	0.4	0.0	0.2	89.4	113.1	101.2
Pioneer Hybrid 8522Y	0.0	0.0	0.0	85.3	116.9*	101.1
Triumph TR481	0.0	0.0	0.0	78.1	123.8*	101.0
Cargill 575	0.0	0.0	0.0	87.3	114.8	101.0
MFA 650	0.0	0.0	0.0	80.4	121.2*	100.8
Cargill X19225	0.0	0.0	0.0	84.5	117.1*	100.8
Fontanelle Exp.6300	0.0	0.0	0.0	80.1	121.5*	100.8
Fontanelle 5590	0.0	0.0	0.0	84.3	116.9*	100.6
MFA GS10	0.0	0.0	0.0	83.2	117.3*	100.2
Pioneer Hybrid 8500	0.0	0.0	0.0	82.3	116.8*	99.6
ICI 5536	0.0	0.0	0.0	80.3	119.0*	99.6
Genetic Res. GRI 23977	0.0	0.0	0.0	81.5	117.0*	99.2
Fontanelle 5570	0.4	0.0	0.2	78.5	119.3*	98.9
Triumph TR65G	0.0	0.0	0.0	78.0	119.4*	98.7
Dekalb DK-54	0.0	0.0	0.0	84.0	112.7	98.4
Ciba 1655	0.0	0.0	0.0	76.3	118.5*	97.4
MFA 660	0.4	0.0	0.2	75.8	118.1*	97.0
Cargill 837	0.0	0.0	0.0	88.8	104.9	96.8
Ciba 1607	0.0	0.0	0.0	78.1	112.0	95.0
Pioneer Hybrid 8212Y	0.0	0.0	0.0	74.8	115.2	95.0
Asgrow A570	0.0	0.0	0.0	78.9	107.1	93.0
Dekalb DK-56	0.5	0.0	0.2	82.1	103.7	92.9
Cargill 737	0.0	0.0	0.0	75.0	110.1	92.6
Cargill 775Y	0.0	0.0	0.0	83.6	95.8	89.7
TRIAL AVERAGE	**0.1**	**0.0**	**0.0**	**84.3**	**117.8**	**101.0**
L.S.D. AT .10	**0.5**	**NS**	**0.2**	**9.6**	**14.1**	**10.2**
C.V. %				**8.3**	**8.8**	**8.5**

** Highest yielding hybrid in the test.
* Hybrid which did not yield significantly less than the highest yielding hybrid in the test.
NS Not significant.

TABLE 6. Performance of Grain Sorghum Hybrids evaluated near Hughesville (Pettis County) on the Kenny Tevis Farm during 1993-95.

Planted: 6 June 1995
Harvested: 23 October 1995
Planted Population: 104,500 seeds/A.
Row Spacing: 30 inches
Soil Type: Summit Silt Loam

Fertilizer: N=110; P_2O_5=50; K_2O=70 lbs./A
Herbicide: Ramrod + Atrazine
Insecticide: None
Previous Crop: Sunflower
Soil Test: pH=6.0, OM=3.6%, P=98, K=233

Growing Season Rainfall: May=12.9, June=6.3, July=3.7, Aug.=7.3, Sept.=2.1, TOTAL=32.3"

	1995					Yield (Bu/Acre)			Means	
Brand-Hybrid	Moisture (%)	Plant Ht. (In.)	Off-type Heads (%)	Compactness Score	Lodging (%)	1995	1994	1993	2 Yr.	3 Yr.
NC+ 7R37E	13.3	56	0.0	3.0	2.7	141.6**	153.7*	--	147.6	--
Cargill 837	13.8	57	0.0	4.7	1.0	141.2*	147.7*	96.2	144.5	128.4
Asgrow A531	13.2	58	0.0	4.3	0.5	141.2*	157.8*	--	149.5	--
ICI 5616	13.2	48	0.0	5.0	0.8	135.2*	--	--	--	--
Ohlde 215	13.7	57	0.0	4.3	0.8	134.8*	--	--	--	--
Cargill X19207	13.6	58	0.0	2.7	2.5	134.3*	--	--	--	--
MFA 650	14.0	54	0.0	4.0	0.0	131.3	143.6	87.8	137.5	120.9
Mycogen 444E	13.7	57	0.0	4.0	4.7	130.5	148.8*	87.4	139.7	122.2
Penngrain DR	13.2	54	0.0	3.7	0.5	130.3	--	90.2	--	--
Triumph TR 481	13.5	61	0.0	3.7	0.2	129.9	--	--	--	--
MFA GS10	13.4	53	0.0	4.7	0.5	129.8	139.7	102.0*	134.8	123.8
Cargill 737	13.0	51	0.0	3.3	0.0	129.4	151.7*	94.4	140.6	125.2
NC+ 7R83	12.8	56	0.0	3.3	1.1	128.8	--	--	--	--
Dekalb DK-45	13.4	59	0.0	5.0	0.3	128.7	--	--	--	--
Ciba 1607	14.0	54	0.0	3.7	0.0	128.2	--	--	--	--
Genetic Res. GRI 54977	13.0	54	0.0	3.3	0.8	127.7	--	--	--	--
Dekalb DK-54	13.6	62	0.0	3.0	1.1	127.4	152.0*	--	139.7	--
Gold World GW 6046	13.3	53	0.0	4.3	0.8	127.2	--	--	--	--
Dekalb DK-58	13.9	61	0.0	4.7	0.5	126.9	146.4	84.5	136.7	119.3
Genetic Res. GRI 57977	13.2	49	0.0	4.7	0.3	126.7	--	--	--	--
Pioneer Hybrid 8305	13.8	62	0.0	2.7	0.3	126.6	148.4*	112.9**	137.5	129.3
Cargill 575	13.7	52	0.0	3.7	0.0	125.3	141.3	97.5	133.3	121.4
Cargill X19225	14.6	54	0.0	3.7	1.3	124.8	--	--	--	--
Northrup King KS 555Y	13.4	55	0.0	2.0	0.2	124.6	142.5	--	133.6	--
Pioneer Hybrid 8212Y	13.3	51	0.0	3.7	0.3	124.2	143.5	91.0	133.9	119.6
Pioneer Hybrid 8522Y	13.1	51	0.0	3.7	0.0	123.7	--	--	--	--
Pioneer Hybrid 8500	13.9	50	0.0	4.7	0.0	123.5	142.4	96.7	133.0	120.9
Cargill 775Y	13.2	48	0.0	4.3	3.0	123.5	--	--	--	--
Ciba 1655	13.8	55	0.0	3.0	0.0	123.1	152.6*	93.7	137.9	123.1
MFA 570	13.6	57	0.0	3.7	3.0	123.0	147.2*	103.8*	135.1	124.7
Ohlde 214	13.3	48	0.0	3.7	0.0	121.6	--	--	--	--
MFA 660	13.5	61	0.0	4.0	0.3	120.1	147.5*	89.1	133.8	118.9
Triumph TR 474	13.3	61	0.0	1.7	2.2	119.9	150.2*	--	135.1	--
Ciba 1616	13.2	63	0.0	2.7	2.3	116.9	143.0	105.2*	130.0	121.7
Northrup King KS 735	13.3	54	0.0	3.3	0.8	115.7	--	--	--	--
Dekalb DK-55	12.9	62	0.0	5.0	2.8	115.7	159.3**	--	137.5	--
Ohlde 240W	13.1	56	0.0	2.3	0.0	114.4	--	--	--	--
Dekalb DK-56	13.4	63	0.0	3.0	0.0	113.6	--	88.8	--	--
Golden Harvest H-509	14.2	53	0.0	3.3	4.8	112.9	--	--	--	--
Asgrow A570	13.4	58	0.0	2.7	17.5	111.9	147.4*	--	129.7	--
Triumph TR 65-G	13.2	54	0.0	4.3	3.8	106.6	146.1	90.1	126.4	114.3
Triumph TR 82-G	14.1	56	0.0	1.7	11.0	102.4	--	--	--	--
TRIAL AVERAGE	**13.5**	**56**	**0.0**	**3.6**	**1.7**	**124.9**	**145.7**	**95.0**	**135.3**	**121.9**
L.S.D. AT .10[1]	**NS**	**2**	**NS**	**1.1**	**2.9**	**9.6**	**12.4**	**14.4**		
C.V. %	**4.5**	**3.2**		**21.4**		**5.6**	**5.2**	**9.3**		

[1] LSD for previous years calculated at p = 0.05.
-- Data not available.
** Highest yielding hybrid in the test.
* Hybrid which did not yield significantly less than the highest yielding hybrid in the test.
NS Not significant.

TABLE 7. Performance of Grain Sorghum Hybrids evaluated near Urich (Henry County) on the Kurt Gretzinger Farm during 1994-95 and near Nevada (Vernon County) on the Gilbert Wilson Farm during 1993.

Planted: 15 June 1995
Harvested: 20 October 1995
Planted Population: 104,500 seeds/A.
Row Spacing: 30 inches
Soil Type: Hartwell Silt Loam

Fertilizer: N=120; P_2O_5=50; K_2O=120 lbs./A
Herbicide: Ramrod + Atrazine
Insecticide: None
Previous Crop: Soybean
Soil Test: pH=6.3, OM=3.4%, P=32, K=128

Growing Season Rainfall: May=13.6, June=6.6, July=1.2, Aug.=9.0, Sept.=1.6, TOTAL=32.0"

Brand-Hybrid	1995 Moisture (%)	1995 Plant Ht. (In.)	1995 Off-type Heads (%)	1995 Compactness Score	1995 Lodging (%)	Yield (Bu/Acre) 1995	Yield (Bu/Acre) 1994	Yield (Bu/Acre) 1993	Means 2 Yr.	Means 3 Yr.
Pioneer Hybrid 8500	10.3	52	0.2	2.1	0.0	100.8**	116.8	100.0*	108.8	105.9
Ciba 1655	11.2	48	0.1	2.0	0.0	83.2*	118.1	81.2	100.7	94.2
ICI 5616	11.3	48	0.1	2.1	0.0	82.7*	123.8*	--	103.3	--
Cargill 775Y	10.4	49	0.1	2.2	0.0	81.3	--	--	--	--
Triumph TR 82-G	14.3	57	0.1	1.4	0.0	80.6	137.8*	--	109.2	--
Cargill 837	12.0	55	0.0	1.9	0.0	79.9	129.0*	92.0*	104.5	100.3
Asgrow A570	10.8	58	0.1	1.3	0.0	78.4	134.9*	--	106.7	--
Penngrain DR	10.2	51	0.0	2.5	0.0	77.2	--	87.5	--	--
Triumph TR 65-G	10.6	53	0.1	1.0	0.0	77.0	116.9	87.9	97.0	93.9
Asgrow A531	13.6	55	0.0	1.7	0.0	76.7	137.1*	--	106.9	--
MFA GS10	9.9	48	0.1	2.7	0.0	75.7	121.3	80.6	98.5	92.5
Pioneer Hybrid 8212Y	12.0	53	0.5	1.9	0.0	75.3	126.4*	83.9	100.9	95.2
Ciba 1607	12.9	56	0.1	2.0	0.0	74.4	--	--	--	--
Cargill 737	10.3	51	0.1	1.9	0.0	73.2	121.5	94.7*	97.4	96.5
Northrup King KS 555Y	11.4	52	0.0	1.4	0.0	72.4	--	--	--	--
Pioneer Hybrid 8522Y	13.7	48	0.6	1.4	0.0	72.3	--	--	--	--
Ohlde 240W	12.1	52	0.0	1.9	0.0	71.8	--	--	--	--
Triumph TR 474	14.4	53	0.1	1.3	0.0	71.3	140.3*	--	105.8	--
NC+ 7R83	10.3	53	0.0	1.6	0.0	71.1	--	--	--	--
Cargill 575	10.9	51	0.0	2.1	0.0	70.7	132.6*	85.2	101.7	96.2
Mycogen 444E	12.5	45	0.1	2.7	0.0	70.6	115.2	92.6*	92.9	92.8
Northrup King KS 735	12.6	50	0.0	2.2	0.0	70.1	124.8*	--	97.4	--
Cargill X19225	13.8	55	0.1	1.5	0.0	69.3	--	--	--	--
MFA 570	10.4	55	0.1	1.8	0.0	68.9	115.9	105.0**	92.4	96.6
Ohlde 215	11.0	52	0.0	2.6	0.0	68.8	124.3*	--	96.6	--
NC+ 7R37E	12.2	53	0.1	1.9	0.0	67.9	124.4*	--	96.2	--
Pioneer Hybrid 8305	16.5	54	0.1	1.7	0.3	67.3	129.4*	101.5*	98.4	99.4
MFA 650	13.4	55	0.4	2.2	0.0	65.9	122.1	97.1*	94.0	95.0
Cargill X19207	12.6	49	0.9	1.4	0.0	65.5	--	--	--	--
Ohlde 214	11.0	48	0.1	1.6	0.0	65.3	106.7	--	86.0	--
Dekalb DK-45	13.7	55	0.1	2.7	0.0	60.7	--	--	--	--
MFA 660	18.5	54	0.1	1.8	0.0	58.8	126.5*	75.6	92.7	87.0
Gold World GW 6046	10.7	53	0.1	1.8	0.0	57.8	--	--	--	--
Golden Harvest H-509	13.6	53	0.0	1.6	0.0	57.3	--	--	--	--
Ciba 1616	14.1	59	0.5	1.3	0.0	56.9	131.4*	88.8*	94.2	92.4
Genetic Res. GRI 57977	12.9	49	0.0	2.3	0.0	56.8	--	--	--	--
Dekalb DK-54	16.9	54	0.0	1.8	0.0	55.8	133.7*	74.8	94.8	88.1
Dekalb DK-58	19.3	49	0.0	2.1	0.0	53.1	124.7*	84.1	88.9	87.3
Dekalb DK-55	16.2	63	0.1	3.3	0.0	50.8	142.4**	--	96.6	--
Triumph TR 481	31.1	59	1.0	2.2	0.0	47.8	126.2*	--	87.0	--
Dekalb DK-56	27.9	56	0.0	1.9	0.0	40.9	123.0*	83.6	82.0	82.5
Genetic Res. GRI 54977	14.6	47	0.0	1.2	0.0	40.4	--	--	--	--
TRIAL AVERAGE	**13.5**	**53**	**0.1**	**1.9**	**0.0**	**68.2**	**123.6**	**88.7**	**95.9**	**93.5**
L.S.D. AT .10[1]	**4.5**	**4**	**NS**	**0.5**	**NS**	**19.4**	**19.7**	**16.7**		
C.V. %	**24.3**	**5.2**		**20.5**		**20.8**	**9.8**	**11.5**		

[1] LSD for previous years calculated at p = 0.05.
-- Data not available.
** Highest yielding hybrid in the test.
* Hybrid which did not yield significantly less than the highest yielding hybrid in the test.
NS Not significant.

TABLE 8. Performance of Grain Sorghum Hybrids evaluated near Lamar (Barton County) on the Wally Norton Farm during 1993-95.

Planted: 16 June 1995
Harvested: 23 October 1995
Planted Population: 104,500 seeds/A.
Row Spacing: 30 inches
Soil Type: Parsons Silt Loam

Fertilizer: N=80; P_2O_5=40; K_2O=40 lbs./A
Herbicide: Ramrod + Atrazine
Insecticide: None
Previous Crop: Soybean
Soil Test: pH=6.6, OM=1.8%, P=44, K=106

Growing Season Rainfall: May=13.4, June=11.6, July=1.1, Aug.=3.0, Sept.=2.1, TOTAL=31.2"

	1995					Yield (Bu/Acre)			Means	
Brand-Hybrid	Moisture (%)	Plant Ht. (In.)	Off-type Heads (%)	Compactness Score	Lodging (%)	1995	1994	1993	2 Yr.	3 Yr.
ICI 5616	13.8	48	0.0	2.3	0.0	123.3**	118.3	--	120.8	--
Pioneer Hybrid 8522Y	13.6	48	0.0	3.0	0.0	120.2*	--	--	--	--
Cargill XI9225	13.3	48	0.0	3.0	0.0	119.4*	--	--	--	--
Pioneer Hybrid 8212Y	14.0	49	0.0	3.0	0.2	118.0*	109.5	120.1*	113.8	115.9
MFA GS10	12.8	46	0.0	5.0	0.5	117.9*	126.5*	109.6*	122.2	118.0
MFA 650	13.6	50	0.0	4.3	0.5	117.4*	108.3	85.8	112.9	103.8
MFA 660	13.7	55	0.0	4.0	0.0	117.0*	110.9	97.7	114.0	108.5
Cargill 737	13.3	49	0.0	4.0	0.3	116.8*	102.9	115.6*	109.9	111.8
Dekalb DK-55	15.8	54	0.0	5.0	2.1	116.7*	115.1	--	115.9	--
Mycogen 444E	13.8	49	0.0	4.3	1.1	116.3*	115.9	103.3*	116.1	111.8
Dekalb DK-54	15.3	57	0.0	2.3	0.0	115.9*	122.2	99.4	119.1	112.5
Northrup King KS 555Y	13.3	53	0.0	2.3	0.2	115.5*	--	--	--	--
Gold World GW 6046	13.9	46	0.0	4.0	0.0	115.2*	--	--	--	--
MFA 570	12.9	52	0.0	3.7	2.5	115.2*	123.1	104.3*	119.2	114.2
Northrup King KS 735	13.7	52	0.0	5.0	1.2	114.6*	116.9	--	115.8	--
Dekalb DK-45	13.5	54	0.0	4.3	0.5	113.9*	--	--	--	--
Ohlde 214	13.5	45	0.0	3.3	0.0	113.5*	104.9	--	109.2	--
Cargill 837	13.7	49	0.0	4.3	0.5	113.4*	125.7*	112.0*	119.6	117.0
Asgrow A531	13.8	51	0.0	4.3	0.9	112.8*	131.7*	--	122.3	--
Triumph TR 474	15.2	54	0.0	2.0	0.3	112.7*	124.0*	--	118.4	--
Genetic Res. GRI 54977	13.5	49	0.0	3.3	1.8	112.1*	--	--	--	--
Dekalb DK-58	15.2	49	0.0	4.0	0.3	111.9	105.5	105.3*	108.7	107.6
Asgrow A570	13.3	56	0.0	3.3	3.6	111.4	125.2*	--	118.3	--
Ohlde 215	12.9	48	0.0	5.0	0.8	111.2	117.1	--	114.2	--
Triumph TR 82-G	14.3	54	0.0	1.7	2.9	110.7	132.5*	--	121.6	--
Ohlde 240W	13.2	53	0.0	3.3	0.0	110.2	--	--	--	--
Ciba 1655	15.5	47	0.0	2.0	0.0	110.2	108.9	97.3	109.6	105.5
Ciba 1616	14.1	54	0.0	2.3	1.1	110.1	120.9	121.3**	115.5	117.4
NC+ 7R37E	13.9	48	0.0	3.7	7.6	109.9	123.8*	--	116.9	--
Cargill 575	13.6	53	0.0	3.3	0.2	109.4	111.5	96.3	110.5	105.7
Cargill X19207	13.7	48	0.0	2.3	0.7	109.3	--	--	--	--
NC+ 7R83	13.4	51	0.0	3.0	0.2	108.1	--	--	--	--
Pioneer Hybrid 8305	14.0	54	0.0	3.0	0.5	107.9	129.7*	93.8	118.8	110.5
Penngrain DR	13.2	48	0.0	3.7	0.6	107.5	--	100.3	--	--
Dekalb DK-56	15.9	53	0.0	4.0	0.3	106.5	105.0	92.0	105.8	101.2
Ciba 1607	13.4	50	0.0	4.0	2.3	106.4	--	--	--	--
Golden Harvest H-509	13.8	49	0.0	4.0	1.1	105.6	--	--	--	--
Genetic Res. GRI 57977	14.4	45	0.0	4.7	0.0	105.2	--	--	--	--
Triumph TR 481	17.4	52	0.0	4.0	0.0	104.7	112.9	--	108.8	--
Triumph TR 65-G	13.4	50	0.0	3.3	1.8	104.6	124.2*	111.4*	114.4	113.4
Pioneer Hybrid 8500	13.4	48	0.0	4.0	0.0	104.4	119.6	98.9	112.0	107.6
Cargill 775Y	13.6	48	0.0	3.0	0.0	103.0	--	--	--	--
TRIAL AVERAGE	**13.9**	**50**	**0.0**	**3.5**	**0.9**	**112.0**	**117.5**	**101.7**	**114.8**	**110.4**
L.S.D. AT .10[1]	**0.8**	**4**	**NS**	**1.1**	**2.1**	**11.3**	**12.6**	**19.6**		
C.V. %	**4.1**	**5.4**		**23.4**		**7.4**	**6.6**	**11.9**		

[1] LSD for previous years calculated at p = 0.05.
-- Data not available.
** Highest yielding hybrid in the test.
* Hybrid which did not yield significantly less than the highest yielding hybrid in the test.
NS Not significant.

TABLE 9. Performance of Grain Sorghum Hybrids evaluated at three Southwest Missouri locations (Hughsville, Urich and Lamar) during 1995.

Hughesville	Urich	Lamar
Planted: 6 June 1995	Planted: 15 June 1995	Planted: 16 June 1995
Harvested: 23 October 1995	Harvested: 20 October 1995	Harvested: 23 October 1995
Planted Pop.: 104,500 seeds/A.	Planted Pop.: 104,500 seeds/A.	Planted Pop.: 104,500 seeds/A.
Row Spacing: 30 inches	Row Spacing: 30 inches	Row Spacing: 30 inches
Soil Type: Summit Silt Loam	Soil Type: Hartwell Silt Loam	Soil Type: Parsons Silt Loam
G. Season Moisture:32.3"	G. Season Moisture:32.0"	G. Season Moisture:31.2"

Brand-Hybrid	Lodging (%)				Yield (Bu/Acre)			
	Hughsville	Urich	Lamar	Mean	Hughsville	Urich	Lamar	Mean
ICI 5616	0.8	0.0	0.0	0.3	135.2*	82.7*	123.3**	113.7**
Cargill 837	1.0	0.0	0.5	0.5	141.2*	79.9	113.4*	111.5*
Asgrow A531	0.5	0.0	0.9	0.5	141.2*	76.7	112.8*	110.2*
Pioneer Hybrid 8500	0.0	0.0	0.0	0.0	123.5	100.8**	104.4	109.6*
MFA GS10	0.5	0.0	0.5	0.3	129.8	75.7	117.9*	107.8*
Cargill 737	0.0	0.0	0.3	0.1	129.4	73.2	116.8*	106.5*
NC+ 7R37E	2.7	0.0	7.6	3.4	141.6**	67.9	109.9	106.5*
Pioneer Hybrid 8212Y	0.3	0.0	0.2	0.2	124.2	75.3	118.0*	105.8*
Mycogen 444E	4.7	0.0	1.1	1.9	130.5	70.6	116.3*	105.8*
Ciba 1655	0.0	0.0	0.0	0.0	123.1	83.2*	110.2	105.5*
Pioneer Hybrid 8522Y	0.0	0.0	0.0	0.0	123.7	72.3	120.2*	105.4
Penngrain DR	0.5	0.0	0.6	0.4	130.3	77.2	107.5	105.0
MFA 650	0.0	0.0	0.5	0.2	131.3	65.9	117.4*	104.9
Ohlde 215	0.8	0.0	0.8	0.5	134.8*	68.8	111.2	104.9
Cargill X19225	1.3	0.0	0.0	0.4	124.8	69.3	119.4*	104.5
Northrup King KS 555Y	0.2	0.0	0.2	0.1	124.6	72.4	115.5*	104.2
Cargill X19207	2.5	0.0	0.7	1.1	134.3*	65.5	109.3	103.0
Ciba 1607	0.0	0.0	2.3	0.8	128.2	74.4	106.4	103.0
NC+ 7R83	1.1	0.0	0.2	0.4	128.8	71.1	108.1	102.7
Cargill 775Y	3.0	0.0	0.0	1.0	123.5	81.3	103.0	102.6
MFA 570	3.0	0.0	2.5	1.8	123.0	68.9	115.2*	102.4
Cargill 575	0.0	0.0	0.2	0.1	125.3	70.7	109.4	101.8
Triumph TR 474	2.2	0.0	0.3	0.8	119.9	71.3	112.7*	101.3
Dekalb DK-45	0.3	0.0	0.5	0.3	128.7	60.7	113.9*	101.1
Asgrow A570	17.5	0.0	3.6	7.0	111.9	78.4	111.4	100.6
Pioneer Hybrid 8305	0.3	0.3	0.5	0.4	126.6	67.3	107.9	100.6
Northrup King KS 735	0.8	0.0	1.2	0.7	115.7	70.1	114.6*	100.1
Ohlde 214	0.0	0.0	0.0	0.0	121.6	65.3	113.5*	100.1
Gold World GW 6046	0.8	0.0	0.0	0.3	127.2	57.8	115.2*	100.1
Dekalb DK-54	1.1	0.0	0.0	0.4	127.4	55.8	115.9*	99.7
Ohlde 240W	0.0	0.0	0.0	0.0	114.4	71.8	110.2	98.8
MFA 660	0.3	0.0	0.0	0.1	120.1	58.8	117.0*	98.6
Triumph TR 82-G	11.0	0.0	2.9	4.6	102.4	80.6	110.7	97.9
Dekalb DK-58	0.5	0.0	0.3	0.3	126.9	53.1	111.9	97.3
Genetic Res. GRI 57977	0.3	0.0	0.0	0.1	126.7	56.8	105.2	96.2
Triumph TR 65-G	3.8	0.0	1.8	1.9	106.6	77.0	104.6	96.1
Ciba 1616	2.3	0.0	1.1	1.1	116.9	56.9	110.1	94.6
Dekalb DK-55	2.8	0.0	2.1	1.6	115.7	50.8	116.7*	94.4
Triumph TR 481	0.2	0.0	0.0	0.1	129.9	47.8	104.7	94.1
Genetic Res. GRI 54977	0.8	0.0	1.8	0.9	127.7	40.4	112.1*	93.4
Golden Harvest H-509	4.8	0.0	1.1	2.0	112.9	57.3	105.6	91.9
Dekalb DK-56	0.0	0.0	0.3	0.1	113.6	40.9	106.5	87.0
TRIAL AVERAGE	**1.7**	**0.0**	**0.9**	**0.9**	**124.9**	**68.2**	**112.0**	**101.7**
L.S.D. AT .10	**2.9**	**NS**	**2.1**	**1.8**	**9.6**	**19.4**	**11.3**	**8.2**
C.V. %					**5.6**	**20.8**	**7.4**	**10.3**

** Highest yielding hybrid in the test.
* Hybrid which did not yield significantly less than the highest yielding hybrid in the test.
NS Not significant.

TABLE 10. Performance of Grain Sorghum Hybrids evaluated near Oran (Scott County) on the Tom Shoemaker Farm during 1995 and on the Glenn Nothdurft Farm during 1993-94.

Planted: 28 April 1995
Harvested: 14 September 1995
Planted Population: 104,500 seeds/A.
Row Spacing: 30 inches
Soil Type: Commerce Silt Loam
Growing Season Rainfall: May=7.4, June=4.5, July=4.3, Aug.=2.2, Sept.=1.0, TOTAL=19.4"

Fertilizer: N=150; P_2O_5=75; K_2O=75 lbs./A
Herbicide: Ramrod + Atrazine, Laddok
Insecticide: None
Previous Crop: Soybean
Soil Test: pH=5.9, OM=1.9%, P=56, K=110

	1995					Yield (Bu/Acre)			Means	
Brand-Hybrid	Moisture (%)	Plant Ht. (In.)	Off-type Heads (%)	Compactness Score	Lodging (%)	1995	1994	1993	2 Yr.	3 Yr.
Dekalb DK-55	11.2	53	--	4.1	--	132.7**	164.9	--	148.8	--
Triumph TR 481	11.9	55	--	2.0	--	120.3*	146.1	--	133.2	--
Triumph TR82-G	12.1	50	--	3.1	--	118.1*	159.6	109.6	138.9	129.1
Pioneer Hybrid 8305	11.3	49	--	1.4	--	116.6*	157.8	131.4	137.2	135.3
Pioneer Hybrid 8282	12.3	55	--	3.3	--	114.4*	--	--	--	--
Dekalb DK-54	12.3	57	--	1.8	--	114.2*	147.9	136.2*	131.1	132.8
Pioneer Hybrid XS345	13.4	54	--	2.0	--	110.7*	--	--	--	--
Pioneer Hybrid 8118	12.0	56	--	2.1	--	110.6*	163.2	130.9	136.9	134.9
Pioneer Hybrid 8310	11.9	50	--	1.9	--	109.2*	160.9	150.1*	135.1	140.1
Deltapine G-522DR	13.0	51	--	1.8	--	107.6	148.9	136.8*	128.3	131.1
Gold World GW 9046	13.0	46	--	3.6	--	106.4	--	--	--	--
Triumph TR474	11.7	57	--	1.0	--	105.6	--	--	--	--
Asgrow A531	12.5	51	--	1.6	--	105.4	159.3	--	132.4	--
AgraTech 805WG	11.6	50	--	2.2	--	105.1	161.1	125.4	133.1	130.5
Cargill 575	10.9	48	--	2.8	--	103.5	156.4	117.6	130.0	125.8
HyPerformer HSC 893	12.6	48	--	2.2	--	98.9	--	--	--	--
Asgrow A570	9.6	47	--	2.2	--	97.6	159.5	145.0*	128.6	134.0
Terral TV 9421	10.5	46	--	2.1	--	97.3	146.6	--	122.0	--
Cargill X12287	12.2	46	--	1.6	--	96.6	--	--	--	--
Cargill 837	12.4	50	--	2.0	--	95.6	143.4	133.0	119.5	124.0
Capehart Challenger	13.1	55	--	1.5	--	94.6	149.3	150.2*	122.0	131.4
Dekalb DK-66	12.6	55	--	1.8	--	94.2	155.4	137.3*	124.8	129.0
Mycogen 444E	11.1	49	--	2.6	--	92.0	157.5	133.8	124.8	127.8
Pioneer Hybrid XS243	11.8	55	--	2.1	--	91.5	--	--	--	--
AgraTech GK802G	11.3	44	--	1.7	--	91.3	143.9	162.7*	117.6	132.6
Capehart Contender	12.4	53	--	2.4	--	90.7	143.8	134.8*	117.3	123.1
Capehart Exp.93-2	12.4	51	--	1.6	--	88.0	159.3	133.4	123.7	126.9
Cargill X19207	13.0	51	--	2.0	--	87.8	--	--	--	--
Northrup King KS 735	12.3	51	--	1.7	--	87.3	155.9	--	121.6	--
Gold World GW 6046	11.2	45	--	1.6	--	87.3	--	--	--	--
NC+ X832	11.8	53	--	0.8	--	86.9	--	--	--	--
MFA 570	12.9	55	--	1.7	--	85.3	150.9	120.2	118.1	118.8
Cargill 737	12.6	45	--	1.5	--	85.0	146.5	126.2	115.8	119.2
MFA 660	10.8	55	--	2.8	--	83.6	143.6	142.2*	113.6	123.1
Cargill 775Y	10.7	50	--	2.0	--	83.4	--	--	--	--
MFA 650	11.6	50	--	2.3	--	82.8	151.0	120.0	116.9	117.9
MFA GS-10	12.5	46	--	1.8	--	82.6	165.2**	144.0*	123.9	130.6
HyPerformer AP9850	13.1	48	--	1.1	--	81.6	154.9	147.8*	118.3	128.1
HyPerformer Ex.9660	10.1	54	--	1.2	--	81.0	--	--	--	--
Pioneer Hybrid XS535	12.0	52	--	0.8	--	80.6	--	--	--	--
Pioneer Hybrid 8212Y	11.6	52	--	1.5	--	80.1	139.4	123.2	109.8	114.2
Pioneer Hybrid 8446	10.5	50	--	2.4	--	78.7	153.8	127.8	116.3	120.1
Dekalb DK-58	11.9	53	--	2.6	--	78.3	148.3	--	113.3	--
Genetic Res. GRI 46977	12.3	46	--	2.1	--	77.9	--	--	--	--
Terral TVX 9535	13.2	48	--	2.4	--	77.8	--	--	--	--
Terral TV 1050	13.3	53	--	3.0	--	77.3	152.7	116.9	115.0	115.6
Cargill X19225	12.3	47	--	2.6	--	76.4	--	--	--	--
ICI 5503	12.7	48	--	2.1	--	74.3	--	--	--	--
HyPerformer Honcho	9.6	48	--	2.2	--	73.4	147.6	130.8	110.5	117.3
Deltapine 1552	11.6	51	--	2.4	--	71.4	133.6	163.4**	102.5	122.8
HyPerformer HSC 1225DR	10.6	46	--	2.3	--	71.3	149.6	158.5*	110.5	126.5
Genetic Res. GRI 57977	12.2	42	--	2.4	--	69.3	--	--	--	--
Cargill X23521	12.2	35	--	2.7	--	65.9	--	--	--	--
HyPerformer AP9210	10.3	47	--	1.9	--	65.6	--	--	--	--
Dekalb DK-56	11.8	54	--	3.4	--	62.9	138.2	120.7	100.6	107.3
TRIAL AVERAGE	**11.9**	**50**		**2.1**		**91.0**	**151.2**	**132.6**	**121.1**	**124.9**
L.S.D. AT .10[1]	**2.0**	**5**		**1.0**		**24.3**	**NS**	**28.7**		
C.V. %	**12.2**	**7.6**		**35.9**		**19.5**	**18.4**	**13.4**		

[1] LSD for previous years calculated at p = 0.05.
-- Data not available.
** Highest yielding hybrid in the test.
* Hybrid which did not yield significantly less than the highest yielding hybrid in the test.
NS Not significant.

TABLE 11. Performance of Grain Sorghum Hybrids evaluated near New Madrid (New Madrid County) on the Tony Jones Farm during 1993-95.

Planted: 10 May 1995
Harvested: 13 September 1995
Planted Population: 104,500 seeds/A.
Row Spacing: 30 inches
Soil Type: Dubbs Silt Loam
Growing Season Rainfall: May=2.3, June=5.6, July=5.5, Aug.=2.1, Sept.=1.2, TOTAL=16.7"

Fertilizer: N=110; P_2O_5=30; K_2O=30 lbs./A
Herbicide: Ramrod + Atrazine
Insecticide: None
Previous Crop: Soybean
Soil Test: pH=5.7, OM=1.8%, P=76, K=326

Brand-Hybrid	1995 Moisture (%)	1995 Plant Ht. (In.)	1995 Off-type Heads (%)	1995 Compactness Score	1995 Lodging (%)	Yield (Bu/Acre) 1995	Yield (Bu/Acre) 1994	Yield (Bu/Acre) 1993	Means 2 Yr.	Means 3 Yr.
Pioneer Hybrid 8212Y	12.7	45	--	1.5	--	121.1**	119.0	121.4*	120.1	120.5
Dekalb DK-58	12.9	50	--	2.2	--	119.7*	142.6*	--	131.2	--
ICI 5503	14.1	44	--	1.2	--	115.6*	--	--	--	--
Cargill X12287	13.7	51	--	1.3	--	113.6*	--	--	--	--
Dekalb DK-66	14.7	54	--	1.3	--	113.3*	144.0*	99.6	128.7	119.0
Pioneer Hybrid 8446	12.4	41	--	1.5	--	112.4*	143.3*	102.6	127.9	119.4
Dekalb DK-55	15.2	50	--	2.7	--	112.2*	157.3*	--	134.8	--
Pioneer Hybrid 8118	14.4	53	--	1.3	--	109.6*	152.2*	104.0	130.9	121.9
Dekalb DK-56	14.9	54	--	1.7	--	109.3*	145.0*	106.0	127.2	120.1
MFA GS-10	13.9	44	--	2.2	--	108.3*	143.9*	93.2	126.1	115.1
Cargill 837	14.1	46	--	1.5	--	108.3*	130.7*	92.5	119.5	110.5
Pioneer Hybrid 8305	13.7	56	--	1.2	--	108.0*	149.7*	99.4	128.9	119.0
HyPerformer AP9850	13.3	47	--	1.0	--	107.9*	154.4*	103.4	131.2	121.9
Cargill X19225	12.9	47	--	1.5	--	107.5*	--	--	--	--
Asgrow A531	14.5	48	--	1.0	--	107.5*	133.5*	--	120.5	--
Deltapine G-522DR	12.7	44	--	1.3	--	107.0*	152.3*	102.7	129.7	120.7
Gold World GW 6046	13.6	48	--	1.3	--	106.9*	--	--	--	--
Triumph TR82-G	14.1	53	--	1.2	--	106.1*	134.7*	105.0	120.4	115.3
Dekalb DK-54	14.9	51	--	1.5	--	105.9*	151.4*	102.6	128.7	120.0
Triumph TR 481	14.3	54	--	1.7	--	105.2*	132.1*	--	118.7	--
HyPerformer Ex.9660	14.4	44	--	1.5	--	104.7*	--	--	--	--
Mycogen 444E	13.9	47	--	1.7	--	103.8*	150.4*	125.0*	127.1	126.4
Cargill 575	13.0	43	--	1.3	--	103.8*	154.3*	112.3*	129.1	123.5
Capehart Contender	13.6	47	--	1.5	--	103.1*	121.1	89.6	112.1	104.6
Triumph TR474	14.8	48	--	1.0	--	102.1*	--	--	--	--
Cargill 775Y	12.9	40	--	1.3	--	101.3*	--	--	--	--
AgraTech 805WG	13.4	50	--	1.3	--	100.2*	124.6	94.6	112.4	106.5
Pioneer Hybrid XS345	14.5	51	--	1.3	--	99.8*	--	--	--	--
Deltapine 1552	14.2	50	--	1.7	--	99.6	149.7*	88.3	124.7	112.5
Terral TV 9421	14.0	50	--	2.2	--	99.4	141.3*	--	120.4	--
MFA 570	13.3	45	--	1.7	--	99.4	139.7*	94.0	119.6	111.0
Capehart Exp.93-2	13.1	53	--	1.3	--	96.6	107.4	103.6	102.0	102.5
Northrup King KS 735	13.6	46	--	1.7	--	96.2	134.4*	--	115.3	--
HyPerformer Honcho	14.4	38	--	1.5	--	95.7	144.7*	111.4*	120.2	117.3
Terral TV 1050	13.7	51	--	1.2	--	95.3	157.1*	97.1	126.2	116.5
Pioneer Hybrid 8282	14.9	53	--	1.3	--	94.8	--	--	--	--
Pioneer Hybrid 8310	14.6	44	--	1.3	--	93.5	124.6	96.3	109.1	104.8
Pioneer Hybrid XS243	15.4	52	--	1.3	--	92.7	--	--	--	--
MFA 660	14.0	47	--	1.5	--	92.5	158.4*	107.1	125.5	119.3
HyPerformer AP9210	12.3	40	--	1.2	--	90.8	--	--	--	--
HyPerformer HSC 1225DR	12.6	48	--	1.7	--	90.4	145.2*	95.2	117.8	110.3
NC+ X832	14.7	55	--	1.7	--	89.8	--	--	--	--
Cargill 737	13.5	42	--	1.0	--	89.4	150.4*	126.3**	119.9	122.0
HyPerformer HSC 893	14.1	47	--	1.3	--	89.4	--	--	--	--
Capehart Challenger	14.5	52	--	1.3	--	87.6	128.1	109.7*	107.9	108.5
MFA 650	12.8	48	--	1.7	--	86.7	131.3*	96.8	109.0	104.9
Asgrow A570	14.3	50	--	1.5	--	84.3	144.9*	86.3	114.6	105.2
Cargill X19207	13.1	50	--	1.2	--	83.6	--	--	--	--
Pioneer Hybrid XS535	14.7	43	--	1.3	--	83.3	--	--	--	--
Terral TVX 9535	13.5	51	--	1.8	--	82.5	--	--	--	--
Gold World GW 9046	13.6	50	--	1.2	--	81.5	--	--	--	--
Genetic Res. GRI 46977	14.6	51	--	2.0	--	79.8	--	--	--	--
Cargill X23521	13.5	49	--	1.5	--	75.6	--	--	--	--
Genetic Res. GRI 57977	13.7	47	--	2.3	--	73.0	--	--	--	--
AgraTech GK802G	13.0	47	--	1.3	--	68.2	127.4	111.8*	97.8	102.5
TRIAL AVERAGE	**13.8**	**48**		**1.5**		**98.5**	**137.5**	**103.0**	**118.0**	**113.0**
L.S.D. AT .10[1]	**1.7**	**6**		**0.7**		**21.4**	**30.2**	**18.4**		
C.V. %	**9.1**	**8.9**		**33.8**		**15.9**	**13.5**	**11.0**		

[1] LSD for previous years calculated at p =0.05.
-- Data not available.
** Highest yielding hybrid in the test.
* Hybrid which did not yield significantly less than the highest yielding hybrid in the test.

TABLE 12. Performance of Grain Sorghum Hybrids evaluated near Bernie (Stoddard County) on the Kenneth Fortner Farm during 1995.

Planted: 27 April 1995
Harvested: 12 September 1995
Planted Population: 104,500 seeds/A.
Row Spacing: 30 inches
Soil Type: Crowley Silt Loam
Growing Season Rainfall: May=6.3, June=5.2, July=4.8, Aug.=2.1, Sept.=2.1, TOTAL=20.5"

Fertilizer: N=100; P_2O_5=60; K_2O=80 lbs./A
Herbicide: Ramrod + Atrazine
Insecticide: None
Previous Crop: Soybean
Soil Test: pH=6.2, OM=2.1%, P=71, K=349

	1995					Yield (Bu/Acre)			Means	
Brand-Hybrid	Moisture (%)	Plant Ht. (In.)	Off-type Heads (%)	Compactness Score	Lodging (%)	1995	1994	1993	2 Yr.	3 Yr.
HyPerformer AP9850	15.1	51	--	1.6	--	110.9**	--	--	--	--
Pioneer Hybrid XS243	15.2	48	--	1.6	--	102.6*	--	--	--	--
Asgrow A570	15.6	50	--	1.6	--	101.4*	--	--	--	--
Triumph TR474	14.6	52	--	1.1	--	101.2*	--	--	--	--
Pioneer Hybrid 8118	17.7	51	--	2.3	--	100.4*	--	--	--	--
Pioneer Hybrid 8310	14.8	50	--	1.5	--	100.0*	--	--	--	--
Capehart Exp.93-2	16.6	49	--	1.7	--	98.9*	--	--	--	--
Triumph TR 481	16.0	50	--	1.8	--	98.4*	--	--	--	--
HyPerformer HSC 893	16.2	49	--	1.6	--	97.0*	--	--	--	--
Cargill 837	14.2	50	--	1.8	--	97.0*	--	--	--	--
Dekalb DK-66	14.6	55	--	2.0	--	96.7*	--	--	--	--
Cargill 575	15.2	47	--	2.3	--	95.7*	--	--	--	--
MFA 570	15.5	48	--	1.2	--	95.4*	--	--	--	--
Asgrow A531	16.0	51	--	2.1	--	95.3*	--	--	--	--
AgraTech GK802G	16.2	49	--	1.7	--	94.8*	--	--	--	--
Gold World GW 9046	15.1	48	--	1.3	--	93.8*	--	--	--	--
Northrup King KS 735	13.7	49	--	2.2	--	93.6*	--	--	--	--
Dekalb DK-56	15.3	50	--	2.0	--	93.0*	--	--	--	--
Pioneer Hybrid 8212Y	15.1	46	--	1.6	--	92.8*	--	--	--	--
Triumph TR82-G	15.4	46	--	1.7	--	91.6*	--	--	--	--
Terral TV 1050	14.4	48	--	2.1	--	91.3*	--	--	--	--
Pioneer Hybrid 8305	15.9	51	--	1.4	--	90.3*	--	--	--	--
AgraTech 805WG	16.2	47	--	1.9	--	90.0*	--	--	--	--
Dekalb DK-55	15.1	51	--	4.0	--	89.3*	--	--	--	--
NC+ X832	17.5	51	--	1.5	--	89.2*	--	--	--	--
Dekalb DK-58	17.2	49	--	3.5	--	88.7*	--	--	--	--
Pioneer Hybrid XS345	15.6	49	--	1.3	--	87.4	--	--	--	--
Mycogen 444E	14.3	46	--	2.3	--	83.3	--	--	--	--
Dekalb DK-54	15.1	50	--	1.4	--	83.3	--	--	--	--
Pioneer Hybrid 8446	16.1	43	--	2.7	--	83.3	--	--	--	--
MFA 650	15.3	47	--	1.4	--	83.1	--	--	--	--
Deltapine 1552	14.0	52	--	2.3	--	81.7	--	--	--	--
HyPerformer Honcho	16.0	43	--	2.0	--	81.2	--	--	--	--
ICI 5503	16.0	51	--	1.5	--	81.0	--	--	--	--
Cargill X19207	16.1	46	--	1.6	--	80.6	--	--	--	--
MFA GS-10	15.1	47	--	2.3	--	79.7	--	--	--	--
Terral TVX 9535	14.8	45	--	1.9	--	78.9	--	--	--	--
Deltapine G-522DR	17.3	46	--	1.3	--	78.9	--	--	--	--
Cargill X12287	15.4	48	--	1.3	--	77.7	--	--	--	--
Capehart Challenger	15.2	47	--	1.0	--	77.5	--	--	--	--
Terral TV 9421	16.3	49	--	1.8	--	77.0	--	--	--	--
Pioneer Hybrid 8282	15.8	51	--	1.8	--	77.0	--	--	--	--
MFA 660	13.1	48	--	2.1	--	76.6	--	--	--	--
HyPerformer HSC 1225DR	16.1	45	--	1.2	--	76.3	--	--	--	--
Cargill 775Y	15.7	43	--	1.6	--	75.9	--	--	--	--
Gold World GW 6046	15.0	48	--	1.4	--	74.1	--	--	--	--
HyPerformer AP9210	13.3	46	--	1.7	--	72.4	--	--	--	--
HyPerformer Ex.9660	14.8	41	--	1.6	--	71.5	--	--	--	--
Cargill X19225	14.3	44	--	1.2	--	69.6	--	--	--	--
Capehart Contender	15.4	45	--	1.5	--	69.4	--	--	--	--
Cargill 737	14.9	50	--	1.4	--	69.2	--	--	--	--
Cargill X23521	13.3	45	--	1.6	--	68.6	--	--	--	--
Pioneer Hybrid XS535	14.8	43	--	1.3	--	68.3	--	--	--	--
Genetic Res. GRI 46977	16.3	53	--	2.0	--	61.9	--	--	--	--
Genetic Res. GRI 57977	14.2	43	--	1.8	--	47.2	--	--	--	--
TRIAL AVERAGE	**15.3**	**48**		**1.8**		**85.1**				
L.S.D. AT .10[1]	**2.5**	**3**		**0.6**		**22.6**				
C.V. %	**11.8**	**4.6**		**26.6**		**19.4**				

[1] LSD for previous years calculated at p =0.05.
-- Data not available.
** Highest yielding hybrid in the test.
* Hybrid which did not yield significantly less than the highest yielding hybrid in the test.

TABLE 13. Performance of Grain Sorghum Hybrids evaluated at three Southeast Missouri locations (Oran, New Madrid, and Bernie) during 1995.

Oran	New Madrid	Bernie
Planted: 28 April 1995	Planted: 10 May 1995	Planted: 27 April 1995
Harvested: 14 September 1995	Harvested: 13 September 1995	Harvested: 12 September 1995
Planted Pop.: 104,500 seeds/A.	Planted Pop.: 104,500 seeds/A.	Planted Pop.: 104,500 seeds/A.
Row Spacing: 30 inches	Row Spacing: 30 inches	Row Spacing: 30 inches
Soil Type: Commerce Silt Loam	Soil Type: Dubbs Silt Loam	Soil Type: Crowley Silt Loam
G. Season Moisture:19.4"	G. Season Moisture:16.7"	G. Season Moisture:20.5"

	Lodging (%)				Yield (Bu/Acre)			
Brand-Hybrid	Oran	NewMad	Bernie	Mean	Oran	NewMad	Bernie	Mean
Dekalb DK-55	--	--	--	--	132.7**	112.2*	89.3*	111.4**
Triumph TR 481	--	--	--	--	120.3*	105.2*	98.4*	108.0*
Pioneer Hybrid 8118	--	--	--	--	110.6*	109.6*	100.4*	106.9*
Triumph TR82-G	--	--	--	--	118.1*	106.1*	91.6*	105.3*
Pioneer Hybrid 8305	--	--	--	--	116.6*	108.0*	90.3*	105.0*
Triumph TR474	--	--	--	--	105.6	102.1*	101.2*	103.0*
Asgrow A531	--	--	--	--	105.4	107.5*	95.3*	102.7*
Dekalb DK-66	--	--	--	--	94.2	113.3*	96.7*	101.4*
Dekalb DK-54	--	--	--	--	114.2*	105.9*	83.3	101.1*
Cargill 575	--	--	--	--	103.5	103.8*	95.7*	101.0*
Pioneer Hybrid 8310	--	--	--	--	109.2*	93.5	100.0*	100.9*
Cargill 837	--	--	--	--	95.6	108.3*	97.0*	100.3*
HyPerformer AP9850	--	--	--	--	81.6	107.9*	110.9**	100.1*
Pioneer Hybrid XS345	--	--	--	--	110.7*	99.8*	87.4	99.3*
AgraTech 805WG	--	--	--	--	105.1	100.2*	90.0*	98.4
Pioneer Hybrid 8212Y	--	--	--	--	80.1	121.1**	92.8*	98.0
Deltapine G-522DR	--	--	--	--	107.6	107.0*	78.9	97.8
Cargill X12287	--	--	--	--	96.6	113.6*	77.7	96.0
Pioneer Hybrid XS243	--	--	--	--	91.5	92.7	102.6*	95.6
Dekalb DK-58	--	--	--	--	78.3	119.7*	88.7*	95.6
Pioneer Hybrid 8282	--	--	--	--	114.4*	94.8	77.0	95.4
HyPerformer HSC 893	--	--	--	--	98.9	89.4	97.0*	95.1
Capehart Exp.93-2	--	--	--	--	88.0	96.6	98.9*	94.5
Asgrow A570	--	--	--	--	97.6	84.3	101.4*	94.4
Gold World GW 9046	--	--	--	--	106.4	81.5	93.8*	93.9
MFA 570	--	--	--	--	85.3	99.4	95.4*	93.4
Mycogen 444E	--	--	--	--	92.0	103.8*	83.3	93.0
Northrup King KS 735	--	--	--	--	87.3	96.2	93.6*	92.4
Pioneer Hybrid 8446	--	--	--	--	78.7	112.4*	83.3	91.5
Terral TV 9421	--	--	--	--	97.3	99.4	77.0	91.2
ICI 5503	--	--	--	--	74.3	115.6*	81.0	90.3
MFA GS-10	--	--	--	--	82.6	108.3*	79.7	90.2
Gold World GW 6046	--	--	--	--	87.3	106.9*	74.1	89.4
NC+ X832	--	--	--	--	86.9	89.8	89.2*	88.6
Dekalb DK-56	--	--	--	--	62.9	109.3*	93.0*	88.4
Terral TV 1050	--	--	--	--	77.3	95.3	91.3*	88.0
Capehart Contender	--	--	--	--	90.7	103.1*	69.4	87.7
Cargill 775Y	--	--	--	--	83.4	101.3*	75.9	86.9
Capehart Challenger	--	--	--	--	94.6	87.6	77.5	86.6
HyPerformer Ex.9660	--	--	--	--	81.0	104.7*	71.5	85.7
AgraTech GK802G	--	--	--	--	91.3	68.2	94.8*	84.8
Cargill X19225	--	--	--	--	76.4	107.5*	69.6	84.5
MFA 650	--	--	--	--	82.8	86.7	83.1	84.2
Deltapine 1552	--	--	--	--	71.4	99.6	81.7	84.2
MFA 660	--	--	--	--	83.6	92.5	76.6	84.2
Cargill X19207	--	--	--	--	87.8	83.6	80.6	84.0
HyPerformer Honcho	--	--	--	--	73.4	95.7	81.2	83.4
Cargill 737	--	--	--	--	85.0	89.4	69.2	81.2
Terral TVX 9535	--	--	--	--	77.8	82.5	78.9	79.7
HyPerformer HSC 1225DR	--	--	--	--	71.3	90.4	76.3	79.3
Pioneer Hybrid XS535	--	--	--	--	80.6	83.3	68.3	77.4
HyPerformer AP9210	--	--	--	--	65.6	90.8	72.4	76.3
Genetic Res. GRI 46977	--	--	--	--	77.9	79.8	61.9	73.2
Cargill X23521	--	--	--	--	65.9	75.6	68.6	70.0
Genetic Res. GRI 57977	--	--	--	--	69.3	73.0	47.2	63.2
TRIAL AVERAGE					**91.0**	**98.5**	**85.1**	**91.5**
L.S.D. AT .10					**24.3**	**21.4**	**22.6**	**12.9**
C.V. %					**19.5**	**15.9**	**19.4**	**18.2**

** Highest yielding hybrid in the test.
* Hybrid which did not yield significantly less than the highest yielding hybrid in the test.

TABLE 14. SEED COMPANY ADDRESSES AND CHARACTERISTICS* OF HYBRIDS.

Brand-Hybrid	Mat-urity Group	Color		Endo-Sperm Type	Biotype E Gr. Bug Response	Company Addresses
		Seed Coat	Endo-Sperm			
AgraTech GK802G	3	BZ	Y	N	T	AgraTech Seeds, Inc., 5559 N. 500 W., McCordsville, IN 46055 (317-335-3333)
AgraTech 805WG	3	W	Y	N	T	
Asgrow A570	3	R	HY	N	S	Asgrow Seed Co., 2605 E.Kilgore, Kalamazoo,MI 49002 (616-384-5562)
Asgrow A531	3	R	HY	N	R	
Capehart Contender	2	BZ	HY	N	S	Capehart Seed Service, Hwy. 61 S., Holland, MO 63853 (314-695-4447)
Capehart Challenger	3	BZ	HY	N	R	
Capehart EXP 93-2	3	BZ	HY	-	-	
Cargill 575	3	W	HY	N	S	Cargill Hybrid Seeds, Box 5645, Minneapolis, MN 55440 (612-742-6727)
Cargill 737	2	BZ	HY	N	T	
Cargill 775Y	3	W	HY	N	S	
Cargill 837	3	BZ	HY	N	T	
Cargill X12287	4	BZ	HY	N	R	
Cargill X19207	3	BZ	HY	N	R	
Cargill X19225	3	BZ	HY	N	R	
Cargill X23521	4	BZ	HY	N	T	
Ciba 1607	2	W	HY	N	S	Ciba Seeds, 3615, S. Hilton Lane, Peoria, IL 61607 (309-697-2414)
Ciba 1616	2	BZ	HY	N	R	
Ciba 1655	2	BZ	HY	N	R	
Dekalb DK-45	2	BZ	HY	N	R	Dekalb Genetics Corp., Rt. 2, Box 56, Lubbock, TX 79415 (806-763-3336)
Dekalb DK-54	3	BZ	HY	N	R	
Dekalb DK-55	3	BZ	HY	N	R	
Dekalb DK-56	3	R	HY	N	R	
Dekalb DK-58	4	BZ	HY	N	R	
Dekalb DK-66	4	BZ	HY	N	R	
Deltapine 1552	2	R	HY	N	S	Delta and Pine Land Co., PO Box 157, Scott, MS 38772 (601-742-3351)
Deltapine G-522DR	2	BZ	HY	N	S	
Fontanelle 5570	2	R	HY	N	R	Fontanelle Hybrids, Rt.1, Box 18 Nickerson, NE 68044 (402-721-1410)
Fontanelle 5590	3	BZ	HY	N	R	
Fontanelle Ex.6300	2	BZ	HY	N	R	
Gold World GW5960	2	R	HY	N	R	Crosbyton Seed Co., PO Box 429, Crosbyton, TX 79322 (806-675-2308)
Gold World GW6046	2	R	W	N	S	
Gold World GW9046	3	R	W	N	S	
Golden Harvest H-509	3	R	HY	N	R	The J.C. Robinson Seed Co., 100 J.C. Robinson Blvd., Waterloo, NE 68069 (402-779-2531)
GRI 16977	2	BZ	HY	N	-	Genetic Resources Inc., 1606 County, Rd., 600N., Philo, IL 61864 (217-684-2783)
GRI 23977	2	BZ	HY	N	-	
GRI 46977	2	R	HY	N	-	
GRI 54977	2	BZ	HY	N	-	
GRI 57977	2	R	HY	N	-	
Hyperformer HSC 893	2	R	HY	N	R	Hyperformer Seed Co., One Hy Crop Row , Memphis, TN 38120 (901-756-1771)
Hyperformer HSC 1225DR	2	BZ	Y	N	S	
Hyperformer HSC Honcho	1	BZ	Y	N	S	
Hyperformer AP 9210	2	BZ	HY	N	T	
Hyperformer AP 9850	3	BZ	HY	N	R	
Hyperformer EX9660	2	R	-	-	R	
ICI 5503	2	R	HY	N	R	ICI Seed, Rt.2, Box 142, Bowling Green, MO 63334 (314-324-5932)
ICI 5536	2	BZ	HY	N	R	
ICI 5616	2	R	HY	N	S	
MFA 570	2	BZ	Y	N	R	MFA Inc., 615 Locust, Columbia, MO 65201 (314-876-5345)
MFA 650	2	Y	Y	N	T	
MFA 660	3	R	Y	N	S	
MFA GS-10	2	R	Y	N	S	
Mycogen 444E	3	BZ	HY	N	R	Mycogen Plant Sciences, 624 27th, Lubbock, TX 79404 (806-744-1408)

TABLE 14. Continued.

Brand-Hybrid	Maturity Group	Color: Seed Coat	Color: Endosperm	Endosperm Type	Biotype E Gr. Bug Response	Company Addresses
NC+ 7R37E	3	R	W	N	R	NC+ Hybrids, Box 4408, Lincoln, NE 68504 (402-467-2517)
NC+ 7R83	3	R	HY	HW	S	
NC+ X832	3	R	HY	HW	S	
Northrup King KS555Y	2	Y	HY	N	R	Northrup King Co., 702 Magnolia, Mt. Vernon, IL 62864 (618-244-3454)
Northrup King KS735	3	BZ	HY	N	R	
Ohlde 214	1	BZ	HY	N	R	Ohlde Seed Farms,Inc., Rt 1 Box 63, Palmer, KS 66962 (913-692-4555)
Ohlde 215	1	BZ	Y	N	T	
Ohlde 240W	2	-	-	-	-	
Penngrain DR	3	R	Y	N	-	Pennington Seed, 1280 Atlanta Hwy., Madison, GA 30605 (706-342-1234)
Pioneer Hybrid 8118	3	BZ	Y	N	R	Pioneer Hi-Bred Int., Inc., PO Box 1536, O'Fallon IL 62269 (618-624-8222)
Pioneer Hybrid 8212Y	3	Y	Y	N	S	
Pioneer Hybrid 8282	3	R	W	N	S	
Pioneer Hybrid 8305	3	R	W	N	S	
Pioneer Hybrid 8310	3	R	W	N	R	
Pioneer Hybrid 8446	2	BZ	Y	N	R	
Pioneer Hybrid 8500	2	R	W	HW	S	
Pioneer Hybrid 8522Y	2	Y	Y	-	S	Pioneer Hi-Bred Int., Inc., 6767 Old Madison Pike Suite #110, Huntsville, AL 35806 (205-971-0760)
Pioneer Hybrid XS243	3	BZ	Y	N	T	
Pioneer Hybrid XS345	3	R	W	N	R	
Pioneer Hybrid XS535	2	R	W	N	R	
Terral TV1050	1	BZ	Y	N	R	Terral-Norris Seed Co. Inc., 604 Blount St., Lake Providence, LA 71254 (318-559-2840)
Terral TV9421	1	BZ	Y	N	R	
Terral TVX9535	1	R	W	N	T	
Triumph TR65-G	2	R	W	N	R	Triumph Seed Co., Inc., PO Box 1050, Ralls, TX 79357 (806-253-2584)
Triumph TR82-G	3	R	W	N	R	
Triumph TR474	3	W	W	N	R	
Triumph TR481	3	R	W	N	R	

* Descriptions for Commercial Hybrids were provided by the companies submitting them for evaluation.
\- Data not provided by the companies.

Color Codes		
HY	-	Heteroyellow
W	-	White
Y	-	Yellow
R	-	Red
BZ	-	Bronze

Endosperm Type Code		
HW	-	Heterowaxy
N	-	Nonwaxy
W	-	Waxy

Disease Reaction Code		
S	-	Susceptible
T	-	Tolerant
R	-	Resistant

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