



Performance of Grain Sorghum Hybrids in Alabama, 1985



Agronomy and Soils Departmental Series No. 107 February 1986
Alabama Agricultural Experiment Station Auburn University
David H. Teem, Acting Director Auburn University, Alabama

TABLE OF CONTENTS

	Page
INTRODUCTION	1
ACKNOWLEDGMENTS.....	3
TABLE 1. LOCATIONS AND CULTURAL PRACTICES FOR THE 1985 GRAIN SORGHUM HYBRID TESTS.....	5
 NORTHERN ALABAMA	
TABLE 2. YIELD AND LODGING AVERAGES FOR NORTHERN ALABAMA, 1983-85..	6
TABLE 3. CROSSVILLE GRAIN SORGHUM HYBRID TRIAL, 1985.....	7
TABLE 4. WINFIELD GRAIN SORGHUM HYBRID TRIAL, 1985.....	8
TABLE 5. BELLE MINA GRAIN SORGHUM HYBRID TRIAL, 1985.....	9
 CENTRAL ALABAMA	
TABLE 6. YIELD AND LODGING AVERAGES FOR CENTRAL ALABAMA, 1983-85...	10
TABLE 7. PRATTVILLE GRAIN SORGHUM HYBRID TRIAL, 1985.....	11
TABLE 8. MARION JUNCTION GRAIN SORGHUM HYBRID TRIAL, 1985.....	12
TABLE 9. SHORTER GRAIN SORGHUM HYBRID TRIAL, 1985.....	13
 SOUTHERN ALABAMA	
TABLE 10. YIELD AND LODGING AVERAGES FOR SOUTHERN ALABAMA, 1983-85..	14
TABLE 11. MONROEVILLE GRAIN SORGHUM HYBRID TRIAL, 1985.....	15
TABLE 12. FAIRHOPE GRAIN SORGHUM HYBRID TRIAL, 1985.....	16
TABLE 13. HEADLAND GRAIN SORGHUM HYBRID TRIAL, 1985.....	17
TABLE 14. PRELIMINARY GRAIN SORGHUM HYBRID TRIAL, 1985.....	18
SOURCES OF SEED FOR THE 1985 GRAIN SORGHUM TESTS.....	19
ACCEPTABLE HYBRIDS FOR 1986.....	21

Information contained herein is available to all persons regardless of race, color, sex, or national origin.

PERFORMANCE OF GRAIN SORGHUM HYBRIDS IN ALABAMA, 1985

W. C. Johnson and Darrell Williams¹

INTRODUCTION

Grain sorghum performance tests are conducted annually throughout Alabama by the Alabama Agricultural Experiment Station. These tests give a comparison of hybrid performance under the conditions at a particular location. The locations used represent major soil and climatic areas of the State. The performance of hybrids varies with location. Therefore, this report should be carefully studied before a hybrid is selected.

EXPERIMENTAL PROCEDURES

Cultural practices were uniform for all hybrids within a given test. The experimental design for all tests was a randomized complete block with four replications. Test plots were two 36-inch rows, 20 or 30 feet in length. The target plant population was 60,000 plants per acre, with a seeding rate 25 percent higher to ensure a good stand. Test cultural practices are listed in Table 1.

Grain yields were obtained by harvesting the whole test plot with a plot combine, and adjusting harvested grain weight and moisture to a standard 14 percent moisture and 56 pounds per bushel.

Lodging is given as the percentage of plants broken or leaning at an angle of more than 45 degrees. The seedheads of lodged plants were not included in the yields reported.

Days to mid-bloom is one measure of relative maturity. This is taken as days from planting to the date when approximately one-half of the heads in the plot are in bloom.

¹ Professor and Research Associate (resigned) of Agronomy and Soils.

The preliminary grain sorghum hybrid test, Table 13, is used to evaluate new hybrids and experimental lines. If a new hybrid does well in the preliminary test, it is planted in the regular test the next year.

Bird damage at the Tennessee Valley Substation, Belle Mina, was heavy. Damage was concentrated on the earlier maturing hybrids. Bird damage was moderate at Prattville and relatively uniform. Damage was light at the other test sites. Bird damage can be a problem in small fields. In selecting a hybrid, consideration should be given to bird populations; if damage is anticipated, bird-resistant hybrids should be used. Bird-resistant grain sorghum hybrids are sometimes difficult to market and may have lower feed value than the non bird-resistant hybrids.

Yields were severely reduced at the Wiregrass Substation, Headland, by a severe infestation of green-bugs as the grain of most hybrids was maturing.

VARIETY COMPARISONS

The performance of hybrids varies among years and locations. Small yield differences among hybrids may be the result of slight environmental or cultural differences rather than differences in yield potential among hybrids. To aid in determining real differences, a statistical analysis of variance was performed on the data from each location. The L.S.D. (least significant difference) at the 5 percent level is reported to help determine real differences between hybrid yields for each location in 1984. If the yield difference is greater than the L.S.D. value between two hybrids at a given location, the two hybrids are considered to be significantly different in yield. The C.V. (coefficient of variation) is a measure of test variability. An increase in its value indicates a decrease in the precision of the test data.

The list of acceptable hybrids is based on 3-year-average grain yield and lodging data. The list is divided into three regions, north, central, and south. Since all acceptable hybrids are not equal in performance, a review of the data from several years at the test location similar to your situation is the most reliable method for selecting a hybrid best suited for your farming needs.

Anthracnose has become a major factor in grain sorghum production in Alabama. Up to this past growing season, outbreaks of this disease were very sporadic. This year, grain sorghum in many northeast and west central Alabama counties was devastated by anthracnose. Some fields yielded 50 to 75% less grain than expected. Feed quality of much of the harvested grain from diseased fields was also very poor. Resistant grain sorghum hybrids have been the best defense against anthracnose. Of available adapted grain sorghum hybrids, Funk's G-1711 and Pioneer Brand 8333 have the best resistance to this disease. Other hybrids with some anthracnose resistance are DeKalb DK-64, Paymaster 1022, Northrup King 2244, Coker 7737, and Pioneer Brand 8222. Good management plus disease resistant grain sorghum hybrids are necessary to reduce losses to anthracnose.

ACKNOWLEDGMENTS

The performance trials were conducted in cooperation with the following substation and experiment field superintendents and their staffs whose quality work makes this report a reliable source of information for farmers in their areas.

Northern Alabama

Tennessee Valley Substation, Belle Mina - W. B. Webster, Superintendent

Sand Mountain Substation, Crossville - J. T. Eason, Superintendent

Upper Coastal Plain Substation - Winfield - R. A. Moore, Jr., Superintendent

Central Alabama

Black Belt Substation, Marion Junction - L. A. Smith, Superintendent (Retired)

Prattville Experiment Field, Prattville - D. P. Moore, Superintendent

E. V. Smith Research Center, Shorter - W. B. Gordon, Superintendent

Southern Alabama

Monroeville Experiment Field, Monroeville - J. R. Akridge, Superintendent

Wiregrass Substation, Headland - H. Ivey, Superintendent

Gulf Coast Substation, Fairhope - E. L. Carden, Superintendent

Appreciation is also expressed to W. H. Hearn, C. Jacks, and Sally Bagwell, Research Data Analysis, for the computation, summarization, and analysis of the data in this report.

Table 1. Locations and Cultural Practices for the 1985 Grain Sorghum Hybrid Tests

Location	Planting date	Nitrogen rate	Plant population	Harvest date	Herbicides	Insecticides
Tennessee Valley Substation (Belle Mina)	May 14	120	60,000	September 5	Atrazine ¹	Sevin
Sand Mountain Substation (Crossville)	May 6	125	60,000	September 4	Atrazine	Lannate Furadan
Upper Coastal Plain Substation (Winfield)	April 22	120	60,000	August 7	Atrazine	None
E. V. Smith Center (Shorter)	April 10	125	60,000	August 7	Atrazine & Dual	None
Prattville Experiment Field (Prattville)	March 29	120	60,000	August 2	Atrazine	Nudrin & Lorsban
Black Belt Substation (Marion Junction)	April 19	80	60,000	August 30	Atrazine	None
Monroeville Experiment Field (Monroeville)	April 17	90	60,000	August 22	Atrazine	Sevin
Wiregrass Substation (Headland)	April 17	100	60,000	July 23	Atrazine	Malathion
Gulf Coast Substation (Fairhope)	April 3	120	60,000	August 9-13	Atrazine	Sevin & Malathion

¹/All atrazine was applied broadcast when the sorghum was approximately 4 inches high.

TABLE 2. YIELD AND LODGING AVERAGES FOR NORTHERN ALABAMA^{1/} 1983-1985^{2/}

BRAND-HYBRID	YIELD PER ACRE	LODGED STALKS
		BU.
PIONEER B-815 *	98	13.3
TERRA HT 126DR	98	10.2
N-K SAVANNA 5 *	98	14.2
FUNK'S G-522DR	97	10.9
MCCURDY M-57YG	97	8.3
FUNK'S G-522A	95	7.3
COKER 7675	93	6.9
NORTHRUP KING 2660	93	4.2
PIONEER 8222	92	0.8
AGRATECH GK 802G	92	2.1
HYPERFORMER 1225DR	92	1.7
HYPERFORMER 1330DR	91	17.6
TAYLOR-EVANS DINERO	91	3.1
PENN PENNGRAIN YE	90	2.1
AGRATECH GK 712G	88	0.6
PENN PENNGRAIN DR	88	8.3
DEKALB DK 64	86	22.1

^{1/}BELLE MINA, CROSSVILLE, WINFIELD.^{2/}1983 AND 1984 BELLE MINA DATA NOT INCLUDED.

* BIRD-RESISTANT HYBRID.

TABLE 3. CROSSVILLE GRAIN SORGHUM HYBRID TRIAL, 1985

BRAND-HYBRID	1985						1985	
	YIELD	1984-85	1983-85	MID-	BIRD	LODGED		
	BU.	BU.	BU.	MO./DAY	PCI.	PCI.		
N-K SAVANNA 5 *	138	140	103	7/19	0.0	0.0		
PIONEER B-815 *	122	126	112	7/19	0.0	0.0		
DEKALB DK-64BR *	122	-	-	7/19	0.0	0.0		
FUNK'S G-522DR	119	122	108	7/18	0.0	0.0		
P-A-G 5572	117	-	-	7/20	0.0	0.0		
NORTHRUP KING 2665	117	-	-	7/20	0.0	0.0		
AGRATECH GK 802G	117	118	105	7/20	0.0	0.0		
PIONEER 8300	117	121	-	7/20	5.0	0.0		
ASGROW TOPAZ	117	-	-	7/19	0.0	0.0		
PAYMASTER 1091	116	-	-	7/18	0.0	0.0		
PICNEER 8222	116	120	105	7/20	0.0	0.0		
TAYLOR-EVANS Y-75	116	-	-	7/21	0.0	0.0		
FUNK'S G-1711	115	114	-	7/20	5.0	0.0		
COKER 7675	115	118	103	7/20	0.0	2.0		
TERRA HT 126DR	115	122	108	7/20	0.0	0.0		
ASGROW OPAL	114	-	-	7/18	0.0	0.0		
DEKALB M-565	114	-	-	7/20	0.0	0.0		
FFR 421 DR	114	-	-	7/20	0.0	0.0		
NORTHRUP KING 2660	113	119	103	7/20	0.0	0.0		
PIONEER 8333	111	117	-	7/19	0.0	0.0		
MCCURDY M-747	111	-	-	7/20	0.0	0.0		
FUNK'S HW-6045	110	-	-	7/20	0.0	0.0		
FFR 321	109	-	-	7/19	0.0	0.0		
DEKALB DK 64	109	118	89	7/18	25.0	0.0		
MCCURDY M-57YG	109	117	104	7/20	5.0	0.0		
STAUFFER S-9750	108	-	-	7/20	0.0	0.0		
PENN PENN GRAIN YE	108	114	99	7/18	0.0	0.0		
TAYLOR-EVANS Y-101-G	105	-	-	7/20	5.0	0.0		
HYPERPERFORMER 1225DR	105	113	101	7/19	0.0	0.0		
P-A-G 4462	104	-	-	7/19	5.0	0.0		
FUNK'S G-522A	104	118	103	7/18	0.0	0.0		
AGRATECH GK 712G	103	115	98	7/20	0.0	0.0		
TAYLOR-EVANS DINERO	102	107	99	7/21	0.0	0.0		
HYPERPERFORMER HONCHO	102	-	-	7/20	0.0	0.0		
HYPERPERFORMER 1330DR	100	118	96	7/20	15.0	0.0		
PAYMASTER R1090	98	-	-	7/18	0.0	0.0		
PENN PENN GRAIN DR	98	108	97	7/19	0.0	0.0		
AGRATECH GK 552G	85	-	-	7/18	20.0	0.0		
STAUFFER 530GR	85	-	-	7/18	20.0	0.0		
STAUFFER S9533	81	-	-	7/18	20.0	0.0		
TEST MEAN	110							
L.S.D. (.05)	14.7							
C.V. (%)	9.6							

* BIRD RESISTANT HYBRID.

TABLE 4. WINFIELD GRAIN SORGHUM HYBRID TRIAL, 1985

BRAND-HYBRID	YIELD BU.	1985		1984-85		1983-85		TID- BLDM	BIRD MO./DAY	LODGE PCI.	STALKS PCI.	1985	
		2-YR. AV. BU.	3-YR. AV. BU.	2-YR. AV. BU.	3-YR. AV. BU.	MO./DAY	PCI.					PCI.	PCI.
N-K SAVANNA 5 *	110	89	-	89	-	7/8	-	-	-	-	0.0	0.0	
NORTHRUP KING 2665	104	-	-	-	-	7/8	-	-	-	-	0.0	0.0	
FUNK'S HW-6045	103	-	-	-	-	7/3	-	-	-	-	0.0	0.0	
HYPERFORMER 1330DR	103	81	-	80	-	7/8	-	-	-	-	0.0	0.0	
ASGROW OPAL	100	-	-	-	-	7/8	-	-	-	-	0.0	0.0	
MCCURDY M-57YG	100	83	-	85	-	7/8	-	-	-	-	0.0	0.0	
PAYMASTER 1091	99	-	-	-	-	7/8	-	-	-	-	0.0	0.0	
TAYLOR-EVANS Y-75	97	-	-	-	-	7/8	-	-	-	-	0.0	0.0	
FUNK'S G-522DR	97	82	-	80	-	7/8	-	-	-	-	0.0	0.0	
TERRA HT 126DR	96	84	-	81	-	7/3	-	-	-	-	0.0	0.0	
DEKALB DK-64BR *	95	-	-	-	-	7/3	-	-	-	-	0.0	0.0	
DEKALB DK 64	95	79	-	78	-	7/3	-	-	-	-	0.0	0.0	
ASGROW TOPAZ	95	-	-	-	-	7/8	-	-	-	-	0.0	0.0	
P-A-G 5572	92	-	-	-	-	7/3	-	-	-	-	0.0	0.0	
HYPERFORMER 1225DR	92	75	-	75	-	7/3	-	-	-	-	0.0	0.0	
STAUFFER S9533	90	-	-	-	-	7/3	-	-	-	-	0.0	0.0	
PIONEER B-815 *	89	75	-	76	-	7/8	-	-	-	-	0.0	0.0	
STAUFFER S-9750	89	-	-	-	-	7/8	-	-	-	-	0.0	0.0	
FUNK'S G-1711	89	71	-	-	-	7/8	-	-	-	-	0.0	0.0	
MCCURDY M-747	88	-	-	-	-	7/8	-	-	-	-	0.0	0.0	
DEKALB M-565	87	-	-	-	-	7/8	-	-	-	-	0.0	0.0	
AGRATECH GK 802G	85	72	-	74	-	7/8	-	-	-	-	0.0	0.0	
HYPERFORMER HONCHO	85	-	-	-	-	7/3	-	-	-	-	0.0	0.0	
STAUFFER 530GR	84	-	-	-	-	7/3	-	-	-	-	5.0	0.0	
AGRATECH GK 552G	82	-	-	-	-	7/3	-	-	-	-	0.0	0.0	
TAYLOR-EVANS Y-101-G	82	-	-	-	-	7/3	-	-	-	-	0.0	0.0	
PENN PENNGRAIN DR	81	70	-	73	-	7/3	-	-	-	-	0.0	0.0	
P-A-G 4462	81	-	-	-	-	7/3	-	-	-	-	0.0	0.0	
COKER 7675	80	78	-	78	-	7/8	-	-	-	-	0.0	0.0	
PENN PENNGRAIN YE	79	70	-	74	-	7/3	-	-	-	-	0.0	0.0	
FUNK'S G-522A	79	70	-	79	-	7/8	-	-	-	-	0.0	0.0	
PIONEER 8300	76	74	-	-	-	7/8	-	-	-	-	0.0	0.0	
FFR 321	76	-	-	-	-	7/8	-	-	-	-	0.0	0.0	
PIONEER 8222	76	67	-	71	-	7/8	-	-	-	-	0.0	0.0	
NORTHRUP KING 2660	76	70	-	74	-	7/8	-	-	-	-	0.0	0.0	
AGRATECH GK 712G	74	69	-	68	-	7/3	-	-	-	-	0.0	0.0	
TAYLOR-EVANS DINERO	72	69	-	75	-	7/8	-	-	-	-	0.0	0.0	
PAYMASTER R1090	69	-	-	-	-	7/3	-	-	-	-	0.0	0.0	
FFR 421 DR	57	-	-	-	-	7/8	-	-	-	-	0.0	0.0	
PIONEER 8333	52	53	-	-	-	7/3	-	-	-	-	0.0	0.0	
TEST MEAN	86												
L.S.D. (.05)	18.2												
C.V. (%)	15.0												

* BIRD RESISTANT HYBRID.

TABLE 5. BELLE MINA GRAIN SORGHUM HYBRID TRIAL, 1985

BRAND-HYBRID	1985						1985	
	YIELD BU.	1984-85		1983-85		MID- BLDM	BIRD DAMGE	LODGED STALKS PCT.
		2-YR. BU.	AV.	3-YR. BU.	AV.			
PIONEER 8333	142	-		-		7/2	2.5	2.0
PIONEER B-815 *	140	-		-		7/6	0.5	0.0
TAYLOR-EVANS Y-75	139	-		-		7/4	1.0	2.0
N-K SAVANNA 5 *	138	-		-		7/8	0.0	0.0
PIONEER 8222	138	-		-		7/8	2.5	1.0
NORTHROP KING 2660	136	-		-		7/6	1.5	0.0
ASGROW TOPAZ	134	-		-		7/6	4.5	7.0
AGRATECH GK 712G	133	-		-		7/2	2.0	1.0
FUNK'S G-522DR	133	-		-		7/4	1.0	1.0
HYPERFORMER HONCHO	133	-		-		7/4	2.0	2.0
MCCURDY M-747	133	-		-		7/2	3.5	0.0
TERRA HT 126DR	133	-		-		7/4	1.5	2.0
FFR 321	132	-		-		7/6	3.0	4.0
PIONEER 8300	132	-		-		7/4	2.5	1.0
DEKALB M-565	132	-		-		7/6	1.0	1.0
HYPERFORMER 1225DR	132	-		-		7/6	3.5	0.0
P-A-G 5572	131	-		-		7/4	4.0	0.0
FUNK'S G-522A	128	-		-		7/2	0.5	6.0
ASGROW OPAL	128	-		-		7/4	4.0	3.0
STAUFFER S-9750	128	-		-		7/4	0.5	0.0
PAYMASTER R1090	128	-		-		7/1	6.5	6.0
FUNK'S G-1711	126	-		-		7/10	2.0	1.0
AGRATECH GK 802G	126	-		-		7/2	2.5	0.6
DEKALB DK 64	125	-		-		7/2	1.0	4.0
NORTHROP KING 2665	125	-		-		7/6	0.5	0.0
MCCURDY M-57YG	124	-		-		7/10	2.0	0.0
COKER 7675	123	-		-		7/6	2.0	0.0
TAYLOR-EVANS Y-101-G	122	-		-		7/4	2.0	0.0
HYPERFORMER 1330DR	121	-		-		7/1	3.0	1.0
P-A-G 4462	121	-		-		7/6	4.0	3.0
PENN PENN GRAIN YE	120	-		-		7/4	2.0	1.0
PAYMASTER 1091	119	-		-		7/1	1.5	0.0
TAYLOR-EVANS DINERO	119	-		-		7/4	4.0	5.0
FFR 421 DR	119	-		-		7/2	4.0	4.0
PENN PENN GRAIN DR	112	-		-		7/8	4.0	0.0
FUNK'S HW-6045	110	-		-		7/4	1.0	9.0
DEKALB DK-64BR *	106	-		-		7/1	0.5	35.0
STAUFFER 530GR	86	-		-		7/1	7.0	0.0
AGRATECH GK 552G	73	-		-		7/1	9.0	2.0
STAUFFER S9533	54	-		-		7/1	8.0	1.0
TEST MEAN	123							
L.S.D. (.05)	14.9							
C.V. (%)	8.0							

* BIRD RESISTANT HYBRID.

1/SCALE 0-9 WITH 0 BEING NO BIRD DAMAGE AND 9 BEING SEVERE DAMAGE

TABLE 6. YIELD AND LODGING AVERAGES FOR CENTRAL ALABAMA,^{1/} 1983-1985

BRAND-HYBRID	YIELD PER ACRE	LODGED STALKS	
		BU.	PGI
PIONEER B-815 *	70		0.0
N-K SAVANNA 5 *	65		1.4
TERRA HT 126DR	63		0.0
AGRATECH GK 802G	61		0.0
HYPERFORMER 1330DR	60		0.0
FUNK'S G-522DR	60		0.0
HYPERFORMER 1225DR	60		0.0
FUNK'S G-522A	59		0.0
PIONEER 8222	59		0.0
TAYLOR-EVANS DINERO	59		0.0
MCCJRDY M-57YG	58		0.0
COKER 7675	58		0.0
PENN PENN GRAIN DR	58		0.0
PENN PENN GRAIN YE	57		0.0
AGRATECH GK 712G	54		0.0
DEKALB DK 64	52		3.2

^{1/} SHORTER, PRATTVILLE, AND MARION JUNCTION.

* BIRD-RESISTANT HYBRID.

TABLE 7. PRATTVILLE GRAIN SORGHUM HYBRID TRIAL, 1985

BRAND-HYBIRD	YIELD	1985					
		1985 BU _s	1984-85 BU _s	1983-85 BU _s	MID- BLOOM	BIRD PCI _s	LODGED PCI _s
PIONEER B-815 *	72	84	80	6/12	0.0	0.0	
DEKALB M-565	70	-	-	6/13	15.0	0.0	
FUNK'S G-522DR	67	68	61	6/11	15.0	0.0	
TERRA HT 126DR	66	69	69	6/13	20.0	0.0	
MCCURDY M-747	66	-	-	6/9	20.0	0.0	
FFR 321	65	-	-	6/9	15.0	0.0	
PAYMASTER R1090	65	-	-	6/7	10.0	0.0	
AGRATECH GK 802G	65	67	66	6/11	20.0	0.0	
MCCURDY M-57Y3	64	63	60	6/13	15.0	0.0	
NORTHRUP KING 2665	64	-	-	6/11	15.0	0.0	
PAYMASTER 1091	64	-	-	6/10	15.0	0.0	
HYPERFORMER 1225DR	63	69	61	6/11	15.0	0.0	
NORTHRUP KING 2660	63	-	-	6/12	15.0	0.0	
FUNK'S G-1711	62	67	-	6/12	25.0	0.0	
DEKALB DK-64BR *	62	-	-	6/9	5.0	30.0	
P-A-G 5572	61	-	-	6/13	20.0	0.0	
HYPERFORMER 1330DR	61	60	55	6/13	15.0	0.0	
TAYLOR-EVANS Y-101-G	60	-	-	6/7	20.0	0.0	
PENN PENN GRAIN YE	59	65	61	6/12	20.0	0.0	
ASGROW OPAL	59	-	-	6/13	20.0	0.0	
COKER 7675	59	64	62	6/11	20.0	0.0	
PENN PENN GRAIN DR	58	62	51	6/12	20.0	0.0	
FUNK'S G-522A	58	69	64	6/12	20.0	0.0	
PIONEER 8333	58	66	-	6/9	15.0	0.0	
STAUFFER S-9750	58	-	-	6/12	20.0	0.0	
PIONEER 8222	57	63	60	6/12	15.0	0.0	
PIONEER 8300	56	59	-	6/12	15.0	0.0	
ASGROW TDPAZ	56	-	-	6/9	15.0	0.0	
HYPERFORMER HONCHO	55	-	-	6/8	15.0	0.0	
TAYLOR-EVANS DINERO	54	62	62	6/8	20.0	0.0	
AGRATECH GK 712G	54	61	60	6/6	10.0	0.0	
STAUFFER 530GR	51	-	-	6/5	10.0	0.0	
STAUFFER S9533	50	-	-	6/5	35.0	0.0	
FUNK'S HW-6045	49	-	-	6/9	15.0	0.0	
DEKALB DK 64	49	64	44	6/9	30.0	1.5	
FFR 421 DR	46	-	-	6/10	20.0	0.0	
N-K SAVANNA 5 *	45	70	68	6/12	0.0	5.0	
P-A-G 4462	43	-	-	6/5	15.0	10.0	
TAYLOR-EVANS Y-75	41	-	-	6/13	20.0	0.0	
AGRATECH GK 552G	40	-	-	6/6	20.0	0.0	
TEST MEAN	58						
L.S.D. (.05)	7.4						
C.V. (%)	9.1						

* BIRD RESISTANT HYBRID.

TABLE 3. MARION JUNCTION GRAIN SORGHUM HYBRID TRIAL, 1985

BRAND-HYBRID	1985		1984-85		1983-85		MID- MO./DAY	BIRD PCI.	LOOGED PCI.	1985	
	YIELD BU.	BU.	2-YR. AV.	3-YR. AV.	BLDGH	DAMAGE				STALKS	
HYPERMER 1330DR	84	74		67		7/6	0.0		0.0		
PIONEER B-815 *	83	75		69		7/8	0.0		0.0		
PAYMASTER 1091	81	-		-		7/1	0.0		0.0		
FUNK'S G-1711	77	67		-		7/7	0.0		0.0		
TAYLOR-EVANS Y-75	77	-		-		7/7	0.0		0.0		
P-A-G 5572	74	-		-		7/9	0.0		0.0		
N-K SAVANNA 5 *	73	73		68		7/2	0.0		0.0		
FUNK'S G-522DR	73	66		62		7/7	0.0		0.0		
P-A-G 4462	72	-		-		7/2	0.0		0.0		
DEKALB DK 64	72	67		62		7/1	0.0		20.0		
NORTHROP KING 2665	72	-		-		7/3	0.0		0.0		
FFR 321	71	-		-		7/2	0.0		0.0		
PENN PENN GRAIN DR	70	63		50		7/5	0.0		0.0		
MCCURDY M-57YG	70	64		63		7/8	0.0		0.0		
ASGROW OPAL	70	-		-		7/4	0.0		0.0		
HYPERFORMER 1225DR	70	64		58		7/6	0.0		0.0		
ASGROW TOPAZ	69	-		-		7/8	0.0		0.0		
TERRA HT 126DR	69	66		62		7/5	0.0		0.0		
STAUFFER S-9750	69	-		-		7/7	0.0		0.0		
DEKALB M-565	68	-		-		7/7	0.0		0.0		
NORTHROP KING 2660	68	-		-		7/7	0.0		0.0		
PIONEER 8222	67	60		60		7/8	0.0		0.0		
MCCURDY M-747	67	-		-		7/6	0.0		0.0		
PENN PENN GRAIN YE	66	62		51		7/2	0.0		0.0		
PAYMASTER R1090	66	-		-		7/8	0.0		0.0		
DEKALB DK-64BR *	66	-		-		6/26	0.0		85.0		
AGRATECH GK 802G	65	60		58		7/9	0.0		0.0		
COKER 7675	65	62		59		7/5	0.0		0.0		
PIONEER 8333	64	60		-		7/2	0.0		0.0		
PIONEER 8300	64	65		-		7/7	0.0		0.0		
FFR 421 DR	63	-		-		7/1	0.0		0.0		
FUNK'S HW-6045	61	-		-		7/7	0.0		10.0		
FUNK'S G-522A	61	61		61		7/6	0.0		0.0		
STAUFFER S9533	58	-		-		6/30	0.0		0.0		
TAYLOR-EVANS Y-101-G	56	-		-		7/4	0.0		0.0		
TAYLOR-EVANS DINERO	56	57		59		7/8	0.0		0.0		
AGRATECH GK 712G	56	52		48		7/2	0.0		0.0		
STAUFFER 530GR	49	-		-		6/28	20.0		0.0		
AGRATECH GK 552G	46	-		-		6/26	0.0		0.0		
HYPERFORMER HONCHO	43	-		-		7/2	0.0		0.0		
TEST MEAN		67									
L.S.D. (.05)		11.3									
C.V. (%)		12.0									

* BIRD RESISTANT HYBRID.

TABLE 9. SHORTER GRAIN SORGHUM HYBRID TRIAL, 1985

BRAND-HYBRID	YIELD BU.	1985					
		1985 BU.	1984-85 2-YR. AV. BU.	1983-85 3-YR. AV. BU.	MID- BLOOM MO./DAY	BIRD PCI.	LODGED PCI.
DEKALB DK-64BR *	100	-	-	-	6/23	0.0	0.0
FUNK'S G-1711	94	70	-	-	6/29	0.0	0.0
TAYLOR-EVANS Y-75	92	-	-	-	6/24	0.0	0.0
PIONEER B-815 *	91	68	61	6/24	0.0	0.0	0.0
N-K SAVANNA 5 *	89	63	58	6/23	0.0	0.0	0.0
HYPERFARMER 1330DR	89	67	59	6/26	0.0	0.0	0.0
ASGROW OPAL	88	-	-	6/25	0.0	0.0	0.0
HYPERFARMER 1225DR	87	67	59	6/24	2.0	0.0	0.0
NORTHRUP KING 2660	86	-	-	6/25	0.0	0.0	0.0
AGRATECH GK 802G	86	65	57	6/24	5.0	0.0	0.0
NORTHRUP KING 2665	85	-	-	6/24	0.0	0.0	0.0
ASGROW TOPAZ	85	-	-	6/25	0.0	0.0	0.0
PIONEER 8222	84	65	57	6/24	0.0	0.0	0.0
FUNK'S G-522DR	83	67	57	6/24	10.0	0.0	0.0
PAYMASTER 1091	83	-	-	6/26	0.0	0.0	0.0
TERRA HT 126DR	82	69	57	6/26	0.0	0.0	0.0
STAUFFER S-9750	82	-	-	6/24	0.0	0.0	0.0
MCCURDY M-747	82	-	-	6/22	0.0	0.0	0.0
COKER 7675	81	64	53	6/23	0.0	0.0	0.0
FFR 421 DR	80	-	-	6/24	0.0	0.0	0.0
FUNK'S G-522A	80	55	52	6/24	10.0	0.0	0.0
P-A-G 4462	79	-	-	6/27	0.0	0.0	0.0
AGRATECH GK 712G	79	62	54	6/23	0.0	0.0	0.0
DEKALB M-565	78	-	-	6/24	0.0	0.0	0.0
HYPERFARMER HONCHO	78	-	-	6/24	0.0	0.0	0.0
MCCURDY M-57YG	78	61	51	6/26	0.0	0.0	0.0
FFR 321	78	-	-	6/24	0.0	0.0	0.0
PIONEER 8300	77	63	-	6/25	0.0	0.0	0.0
PENN PENN GRAIN DR	75	58	52	6/24	0.0	0.0	0.0
TAYLOR-EVANS Y-101-G	75	-	-	6/25	0.0	0.0	0.0
DEKALB DK 64	74	59	50	6/23	0.0	0.0	0.0
TAYLOR-EVANS DINERO	73	62	55	6/23	0.0	0.0	0.0
PIONEER 8333	73	50	-	6/24	0.0	0.0	0.0
PENN PENN GRAIN YE	72	58	50	6/24	0.0	0.0	0.0
P-A-G 5572	70	-	-	6/26	0.0	0.0	0.0
STAUFFER 530GR	69	-	-	6/24	0.0	0.0	0.0
FUNK'S HW-6045	69	-	-	6/25	0.0	0.0	0.0
PAYMASTER R1090	69	-	-	6/26	0.0	0.0	0.0
AGRATECH GK 552G	66	-	-	6/24	0.0	0.0	0.0
STAUFFER S9533	60	-	-	6/24	0.0	0.0	0.0
TEST MEAN	80						
L.S.D. (.05)	14.5						
C.V. (%)	12.9						

* BIRD RESISTANT HYBRID.

TABLE 10. YIELD AND LODGING AVERAGES FOR SOUTHERN ALABAMA^{1/} 1983-1985

BREED-HYBRID	YIELD PER ACRE BU.	LODGED STALKS
		PCI
N-K SAVANNA 5 *	81	0.1
PIONEER B-815 *	76	1.1
TERRA HT 126DR	69	2.5
MCCJRDY M-57YG	69	0.1
NORTHRUP KING 2660	68	0.9
PIONEER 8222	67	0.0
HYPERFORMER 1225DR	67	1.7
PENN PENNGRAIN YE	67	1.1
AGRATECH GK 802G	66	1.7
DEKALB DK 64	66	0.9
FUNK'S G-522A	65	0.0
HYPERFORMER 1330DR	65	0.2
FUNK'S G-522DR	64	0.0
AGRATECH GK 712G	63	1.2
TAYLOR-EVANS DINERO	62	0.0
COKER 7675	62	0.0
PENN PENNGRAIN DR	60	0.8

^{1/}HEADLAND, MONROEVILLE, AND FAIRHOPE

*BIRD-RESISTANT HYBRID.

TABLE 11. MONROEVILLE GRAIN SORGHUM HYBRID TRIAL, 1985

BRAND-HYBRID	1985 YIELD BU.	1984-85 2-YR. AV. BU.	1983-85 3-YR. AV. BU.	1985		
				MID- BLOOM BU.	MO./DAY	BIRD PCI.
PIONEER 8300	87	73	-	7/12	-	-
NORTHRUP KING 2665	86	-	-	7/10	-	-
PIONEER 8333	85	71	-	7/10	-	-
N-K SAVANNA 5 *	83	83	67	7/17	-	-
PENN PENN GRAIN YE	83	75	64	7/8	-	-
AGRTECH GK 802G	82	69	62	7/10	-	10.0
HYPERFORMER HONCHO	81	-	-	7/6	-	-
NORTHRUP KING 2660	78	68	62	7/10	-	5.0
AGRTECH GK 712G	76	67	56	7/8	-	5.0
DEKALB DK-64BR *	76	-	-	7/15	-	5.0
DEKALB M-565	75	-	-	7/8	-	10.0
PIONEER B-815 *	75	74	64	7/15	-	5.0
FUNK'S G-522A	74	63	59	7/8	-	-
COKER 7675	74	69	61	7/10	-	-
PIONEER 8222	74	65	57	7/12	-	-
DEKALB DK 64	73	68	61	7/17	-	5.0
FUNK'S G-1711	72	66	-	7/12	-	-
TERRA HT 126DR	72	70	64	7/10	-	5.0
ASGROW TOPAZ	71	-	-	7/10	-	-
TAYLOR-EVANS Y-101-G	71	-	-	7/10	-	-
TAYLOR-EVANS Y-75	71	-	-	7/10	-	-
MCCJRDY M-747	71	-	-	7/10	5.0	5.0
FUNK'S G-522DR	70	67	60	7/10	-	-
P-A-G 5572	70	-	-	7/12	-	5.0
PAYMASTER R1090	70	-	-	7/8	-	40.0
FFR 321	70	-	-	7/12	-	5.0
PAYMASTER 1091	69	-	-	7/8	-	5.0
HYPERFORMER 1330DR	69	61	59	7/12	-	-
HYPERFORMER 1225DR	67	69	61	7/10	-	10.0
ASGROW OPAL	67	-	-	7/8	-	-
PENN PENN GRAIN DR	67	56	54	7/10	-	5.0
FUNK'S HW-6045	67	-	-	7/10	-	10.0
STAUFFER 530GR	66	-	-	7/8	-	10.0
P-A-G 4462	63	-	-	7/8	-	10.0
FFR 421 DR	62	-	-	7/6	-	10.0
TAYLOR-EVANS DINERO	62	61	55	7/10	-	-
STAUFFER S-9750	62	-	-	7/12	-	-
MCCJRDY M-57YG	61	67	60	7/12	-	-
AGRTECH GK 552G	59	-	-	7/8	-	20.0
STAUFFER S9533	46	-	-	7/8	-	15.0
TEST MEAN	71					
L.S.D. (.05)		17.6				
C.V. (%)		17.6				

* BIRD RESISTANT HYBRID.

TABLE 12. FAIRHOPE GRAIN SORGHUM HYBRID TRIAL, 1985

BRAND-HYBRID	1985 YIELD BU.	1984-85 2-YR. AV. BU.	1983-85 3-YR. AV. BU.	MID- BLOOM MO./DAY	1985		LODGED PCU.
					BIRD PCI.	SILKS PCI.	
PIONEER 8222	107	80	70	6/5	0.0	0.0	
AGRATECH GK 712G	105	74	63	6/4	0.0	0.0	
N-K SAVANNA 5 *	104	85	74	6/5	0.0	0.0	
PIONEER B-815 *	103	80	72	6/5	0.0	0.0	
FFR 421 DR	102	-	-	6/4	0.0	0.0	
HYPERFARMER HONCHO	100	-	-	6/4	0.0	0.0	
ASGROW TOPAZ	99	-	-	6/5	0.0	0.0	
STAUFFER 530GR	98	-	-	6/4	0.0	0.0	
TERRA HT 126DR	97	80	73	6/5	0.0	0.0	
ASGROW OPAL	97	-	-	6/5	0.0	0.0	
TAYLOR-EVANS Y-101-G	96	-	-	6/4	0.0	0.0	
PIONEER 8333	94	67	-	6/5	0.0	0.0	
FFR 321	94	-	-	6/5	0.0	0.0	
PENN PENN GRAIN YE	91	68	62	6/5	0.0	0.0	
DEKALB M-565	91	-	-	6/6	0.0	0.0	
HYPERFARMER 1225DR	89	71	65	6/6	0.0	0.0	
AGRATECH GK 802G	88	73	65	6/7	0.0	0.0	
STAUFFER S9533	88	-	-	6/5	0.0	0.0	
PAYMASTER R1090	88	-	-	6/6	0.0	0.0	
FUNK'S G-522DR	88	70	67	6/6	0.0	0.0	
NORTHRUP KING 2665	87	-	-	6/6	0.0	0.0	
COKER 7675	86	66	59	6/6	0.0	0.0	
MCCURDY M-57YG	86	70	66	6/7	0.0	0.0	
AGRATECH GK 552G	85	-	-	5/4	0.0	0.0	
PAYMASTER 1091	85	-	-	6/6	0.0	0.0	
PIONEER 8300	85	68	-	6/8	0.0	0.0	
P-A-G 4462	84	-	-	6/5	0.0	0.0	
TAYLOR-EVANS Y-75	84	-	-	6/6	0.0	0.0	
HYPERFARMER 1330DR	83	63	57	6/7	0.0	0.0	
MCCURDY M-747	83	-	-	6/6	0.0	0.0	
FUNK'S G-522A	82	65	63	6/5	0.0	0.0	
TAYLOR-EVANS DINERO	80	68	64	6/5	0.0	0.0	
PENN PENN GRAIN DR	79	64	52	6/7	0.0	0.0	
DEKALB DK-64BR *	78	-	-	6/5	0.0	20.0	
DEKALB DK 64	78	59	58	6/7	0.0	0.0	
NORTHRUP KING 2660	74	67	65	6/7	0.0	0.0	
P-A-G 5572	73	-	-	6/7	0.0	0.0	
STAUFFER S-9750	70	-	-	6/8	0.0	0.0	
FUNK'S G-1711	68	55	-	6/8	0.0	0.0	
FUNK'S HW-6045	64	-	-	6/6	0.0	0.0	
TEST MEAN	88						
L.S.D. (.05)	15.8						
C.V. (%)	12.9						

* BIRD RESISTANT HYBRID.

TABLE 13. HEADLAND GRAIN SORGHUM HYBRID TRIAL, 1985

BRAND-HYBRID	1985		1984-85		1983-85		MID-BLOOM	BIRD DAMAGE	1985	
	YIELD BU.	2-YR. AV. BU.	2-YR. AV. BU.	3-YR. AV. BU.	MOS./DAY	PCU.			PCU.	PCU.
TAYLOR-EVANS Y-75	80	-	-	-	-	-	-	-	-	-
PIONEER B-815 *	71	94	-	93	-	-	-	-	-	-
AGRATECH GK 712G	69	73	-	70	-	-	-	-	-	-
AGRATECH GK 552G	69	-	-	-	-	-	-	-	-	-
DEKALB DK-64BR *	68	-	-	-	-	-	-	-	-	-
FFR 421 DR	66	-	-	-	-	-	-	-	-	-
AGRATECH GK 802G	65	82	-	71	-	-	-	-	-	-
STAUFFER 530GR	64	-	-	-	-	-	-	-	-	-
FFR 321	63	-	-	-	-	-	-	-	-	-
ASGROW OPAL	63	-	-	-	-	-	-	-	-	-
ASGROW TOPAZ	62	-	-	-	-	-	-	-	-	-
DEKALB DK 64	62	81	-	79	-	-	-	-	-	-
TAYLOR-EVANS Y-101-G	61	-	-	-	-	-	-	-	-	-
P-A-G 4462	60	-	-	-	-	-	-	-	-	-
HYPERPERFORMER 1225DR	60	78	-	75	-	-	-	-	-	-
NORTHRUP KING 2665	59	-	-	-	-	-	-	-	-	-
FUNK'S G-522A	59	72	-	74	-	-	-	-	-	-
TERRA HT 126DR	58	77	-	71	-	-	-	-	-	-
N-K SAVANNA 5 *	58	90	-	102	-	-	-	-	-	-
MCCURDY M-747	56	-	-	-	-	-	-	-	-	-
DEKALB M-565	55	-	-	-	-	-	-	-	-	-
STAUFFER S9533	55	-	-	-	-	-	-	-	-	-
NORTHRUP KING 2660	55	76	-	76	-	-	-	-	-	-
COKER 7675	55	69	-	66-	-	-	-	-	-	-
PAYMASTER R1090	54	-	-	-	-	-	-	-	-	-
HYPERPERFORMER HONCHO	54	-	-	-	-	-	-	-	-	-
PENN PENN GRAIN DR	54	71	-	64	-	-	-	-	-	-
FUNK'S HW-6045	52	-	-	-	-	-	-	-	-	-
MCCURDY M-57YG	51	80	-	83	-	-	-	-	-	-
HYPERPERFORMER 1330DR	51	78	-	78	-	-	-	-	-	-
PENN PENN GRAIN YE	51	70	-	74	-	-	-	-	-	-
PIONEER 8222	50	72	-	75	-	-	-	-	-	-
P-A-G 5572	50	-	-	-	-	-	-	-	-	-
TAYLOR-EVANS DINERO	48	72	-	67	-	-	-	-	-	-
PIONEER 8333	48	73	-	-	-	-	-	-	-	-
STAUFFER S-9750	47	-	-	-	-	-	-	-	-	-
PAYMASTER 1091	46	-	-	-	-	-	-	-	-	-
FUNK'S G-1711	46	70	-	-	-	-	-	-	-	-
FUNK'S G-522DR	45	65	-	65	-	-	-	-	-	-
PIONEER 8300	44	69	-	-	-	-	-	-	-	-
TEST MEAN		57								
L.S.D. (1.051)		13.3								
C.V. (%)		16.6								

* BIRD RESISTANT HYBRID.

TABLE 14. PRELIMINARY GRAIN SORGHJM HYBRID TRIAL^{1/}, 1985

BRAND-HYBRID	YIELD	1985	MID-	BIRD	LODGED
		BU.	MO./DAY	PCT.	PCT.
ASGROW CHAPARRAL	83		6/25	0.0	0.0
ASGROW SIERRA	82		6/24	0.0	0.0
FFR 331 DR	78		6/23	0.0	0.0
MC CURDY 84-74	74		6/26	0.0	0.0
P-A-G 6670	73		6/24	0.0	0.0
FUNK'S HW-6119	72		6/23	0.0	0.0
PAYMASTER DR 1125	72		6/23	0.0	0.0
HYPERFORMER EXP-980	71		6/26	0.0	0.0
DEKALB X-447	69		6/23	0.0	0.0
FUNK'S HW-6845	64		6/23	0.0	0.0
HYPERFORMER EXP-671	63		6/26	0.0	0.0
TEST MEAN	73				
L.S.D. (.05)	11.6				
C.V. (%)	11.0				

SHORTER, AL

Sources of Seed for the 1985 Grain Sorghum Tests

Entry designation	Source of seed
AgraTech brand hybrids.....	AgraTech Seeds, Inc. P.O. Box 644 Ashburn, GA 31714
Asgrow brand hybrids.....	Asgrow Seed Company 700 Portage Road Kalamazoo, MI 49001
Coker brand hybrids.....	Coker's Pedigreed Seed Co. P.O. Box 340 Hartsville, SC 29550
DeKalb brand hybrids.....	DeKalb Ag. Research, Inc. Route 2 Lubbock, TX 79408
FFR brand hybrids.....	FFR Cooperative 4112 E. State Road 225 W. Lafayette, IN 47906
Funk's brand hybrids.....	Funk Seeds International P. O. Box 280 Senatobia, MS 38668
Hyperformer brand hybrids.....	Hyperformer Seed Company 5100 Poplar Avenue Memphis, TN 38137
McCurdy brand hybrids.....	McCurdy Seed Company Fremont, IA 52561
Northrup King brand hybrids.....	Northrup King Company P.O. Box 151 Columbus, Mississippi 39701
PAG brand hybrids.....	PAG Seeds P. O. Box 1630 Plainview, TX 79072
Paymaster brand hybrids.....	Paymaster Seeds P. O. Box 1630 Plainview, TX 79072

(continued on the following page)

Sources of Seed for the 1985 Grain Sorghum Tests (continued)

Entry designation	Source of seed
Pennington brand hybrids.....	Pennington Seed, Inc. P.O. Box 290 Madison, GA 30650
Pioneer brand hybrids.....	Pioneer Hi-bred International, Inc. 1000 West Jefferson Street Tipton, IN 46072
Stauffer brand hybrids.....	Stauffer Seeds, Inc. 975 S. Durkin Dr. Springfield, IL 62704
Taylor-Evans brand hybrids.....	Taylor-Evans Seed Company P.O. Box 68 Tulia, TX 79088
Terra brand hybrids.....	Terra Seed Company P.O. Box 10121 Lubbock, TX 79408

ACCEPTABLE HYBRIDS FOR 1986

All acceptable hybrids have been tested for 3 consecutive years in the region listed. All of the acceptable hybrids are not equal in performance. It is suggested that this report be carefully studied before choosing a hybrid. The hybrids are listed in descending order of 3-year average yield for each region.

NORTHERN ALABAMA

<u>Brand Name</u>	<u>Hybrid</u>
Pioneer	B815*
Terra	HT 126DR
Northrup King	Savanna 5*
Funk's	G-522A
McCurdy	M-57YG
Funk's	G-522A
Coker	7675
Northrup King	2660
Pioneer	8222
AgraTech	GK802G
Hyperformer	1225DR
Taylor-Evans	Dinero

CENTRAL ALABAMA

<u>Brand Name</u>	<u>Hybrid</u>
Pioneer	B815*
Northrup King	Northrup King
Terra	HT 126DR
AgraTech	GK 802G
Hyperformer	1330DR
Funk's	G-522DR
Hyperformer	1225DR
Funk's	G-522A
Pioneer	8222
Taylor-Evans	Dinero
McCurdy	M-57YG
Coker	2675
Pennington	Penngrain DR
Pennington	Penngrain YE
**Funk's	G-1711

SOUTHERN ALABAMA

<u>Brand Name</u>	<u>Hybrid</u>
Northrup King	Savanna 5*
Pioneer	B-815*
Terra	HT 126DR
McCurdy	M-57YG
Northrup King	2660
Pioneer	8222
Hyperformer	1225DR
Pennington	Penngrain YE
AgraTech	GK 802G
DeKalb	DK-64
Funk's	G-522A
Hyperformer	1330DR
Funk's	G-522DR
AgraTech	GK712G
Taylor-Evans	Dinero
Coker	2675

*Bird resistant hybrid.

**Recommendation based on exceptional 2-year performance.

