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**P**  
**ERFORMANCE OF**  
**GRAIN SORGHUM**  
**HYBRIDS IN ALABAMA, 1988**



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



# PERFORMANCE OF GRAIN SORGHUM HYBRIDS IN ALABAMA, 1988

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## 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.

Time (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.

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<sup>1</sup>Associate Professor and Professor of Agronomy and Soils.

The preliminary grain sorghum hybrid tests, tables 6 and 10, are 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 was heavy and relatively uniform at the following locations: Sand Mountain Substation, Crossville; Prattville Experiment Field, Prattville; and Gulf Coast Substation, Fairhope. Damage was also heavy at Tennessee Valley Substation, Belle Mina, on the preliminary test. Damage was light at the following locations: Tennessee Valley Substation, Belle Mina; Upper Coastal Plain Substation, Winfield; E.V. Smith Research Center, Shorter; Monroeville Experiment Field, Monroeville; and Wiregrass Substation, Headland. 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.

Two-year and 3-year average yields were severely reduced at the Wiregrass Substation, Headland, by a severe infestation of green-bugs in 1987 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 1988. If the yield difference is greater than 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, and there were sporadic outbreaks of this disease during the 1987 growing season, but none were observed in 1988. In years prior to 1987, however, grain sorghum in many northeast and west-central Alabama counties was devastated by anthracnose. Some fields yielded 50 to 75 percent less grain than expected. Feed quality of much of the harvested grain from diseased fields was also 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 and Pioneer Brand 8222. Good management plus use of disease-resistant grain sorghum hybrids are necessary to reduce losses to anthracnose.

There was not a second or ratoon crop of sorghum in 1988 at any location due to severe dry conditions at time of harvest of first crop.

Plant height of grain sorghum hybrids is reported as regional averages (central, northern, southern) and a single location of Fairhope, table 15.

## 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, H. E. Burgess

Sand Mountain Substation, Crossville - J. T. Eason, M. E. Ruf

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

### Central Alabama

Black Belt Substation, Marion Junction - H. W. Grimes, J. L. Holliman

Prattville Experiment Field, Prattville - D. P. Moore

E. V. Smith Research Center, Shorter - R. R. Duffield

### Southern Alabama

Monroeville Experiment Field, Monroeville - J. R. Akridge

Wiregrass Substation, Headland - H. W. Ivey, L. Wells, B. Gamble

Gulf Coast Substation, Fairhope - E. L. Carden, N. R. McDaniel, M. D. Pegues

Appreciation is also expressed to Mien-Huei Tzeng 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 1988 Grain Sorghum Hybrid Tests

| Location                                      | Planting date | Nitrogen <sup>1</sup> rate | Plant population | Harvest date      | Herbicides             | Insecticides |
|---|---------------|----------------------------|------------------|-------------------|------------------------|--------------|
| Tennessee Valley Substation<br>(Belle Mina)   | May 25        | 85                         | 60,000           | September 15      | Atrazine <sup>2</sup>  | None         |
| Sand Mountain Substation<br>(Crossville)      | May 5         | 125                        | 60,000           | September 2       | Atrazine               | Furadan      |
| Upper Coastal Plain Substation<br>(Winfield)  | April 28      | 80                         | 60,000           | August 30         | None                   | None         |
| E. V. Smith Research Center<br>(Shorter)      | May 4         | 120                        | 60,000           | August 25         | Atrazine &<br>Paraquat | Sevin        |
| Prattville Experiment Field<br>(Prattville)   | May 14        | 120                        | 60,000           | August 22         | Atrazine               | Lorsban      |
| Monroeville Experiment Field<br>(Monroeville) | April 28      | 120                        | 60,000           | August 22<br>& 23 | Atrazine               | Lorsban      |
| Wiregrass Substation<br>(Headland)            | April 14      | 121                        | 60,000           | August 22         | Atrazine               | Sevin        |
| Gulf Coast Substation<br>(Fairhope)           | April 15      | 120                        | 60,000           | August 26         | Dual 8E                | None         |

<sup>1</sup>Pounds per acre N. Lime, phosphorus, potassium, zinc, and sulfur were applied according to recommendation based on soil test.

<sup>2</sup>All Atrazine was applied broadcast when the sorghum was approximately 4 inches high.

TABLE 2. YIELD AND LODGING AVERAGES FOR NORTHERN ALABAMA,<sup>1</sup> 1986-88

| BRAND-HYBRID        | YIELD PER ACRE |  | LODGED STALKS |  |
|---------------------|----------------|--|---------------|--|
|                     | BU.            |  | PCT.          |  |
| NEW NK SAVANNA 5 *  | 92             |  | 10.8          |  |
| DEKALB M-565        | 84             |  | 8.8           |  |
| SUMMIT HT-126DR     | 81             |  | 7.0           |  |
| NEW NK 2660         | 80             |  | 8.0           |  |
| AGRATECH GK 802G    | 80             |  | 6.9           |  |
| NEW NK 99750        | 80             |  | 6.8           |  |
| HYPERFORMER 1225 DR | 79             |  | 7.4           |  |
| FUNK'S RA 787       | 77             |  | 6.8           |  |
| FUNK'S G-522DR      | 77             |  | 5.0           |  |
| CARGILL 5572        | 77             |  | 6.4           |  |
| AGRATECH GK 712G    | 76             |  | 6.6           |  |
| CARGILL R1090       | 76             |  | 11.5          |  |
| PIONEER 8333        | 75             |  | 3.5           |  |
| FFR 421 DR          | 74             |  | 5.8           |  |
| PENN PENNGRAIN DR   | 74             |  | 9.1           |  |
| FUNK'S G-522A       | 74             |  | 5.2           |  |
| FUNK'S G-1711       | 73             |  | 6.3           |  |
| HYPERFORMER 1330 DR | 73             |  | 12.2          |  |
| DEKALB DK-64BR *    | 71             |  | 24.9          |  |
| FFR 321             | 70             |  | 8.5           |  |
| CARGILL 4462        | 70             |  | 12.3          |  |
| DEKALB DK-64        | 68             |  | 7.2           |  |
| HYPERFORMER HONCHO  | 68             |  | 5.2           |  |
| AGRATECH GK 552G    | 59             |  | 6.8           |  |

<sup>1</sup>BELLE MINA, CROSSVILLE, AND WINFIELD. WINFIELD DATA FOR 1987  
NOT INCLUDED DUE TO POOR STAND.

\* BIRD-RESISTANT HYBRID.

TABLE 3. CROSSVILLE GRAIN SORGHUM HYBRID TRIAL, 1988

| BRAND-HYBRID             | 1988                 |                             |                             | 1988                      |                        |                          |
|--------------------------|----------------------|-----------------------------|-----------------------------|---------------------------|------------------------|--------------------------|
|                          | 1988<br>YIELD<br>BU. | 1987-88<br>2-YR. AV.<br>BU. | 1986-88<br>3-YR. AV.<br>BU. | MID-<br>BLOOM<br>MO. /DAY | BIRD<br>DAMAGE<br>PCT. | LODGED<br>STALKS<br>PCT. |
| NEW NK SAVANNA 5 *       | 85                   | 96                          | 87                          | 7/25                      | 1.3                    | 0.0                      |
| DEKALB M-565             | 70                   | 89                          | 86                          | 7/27                      | 22.5                   | 0.0                      |
| NEW NK 2660              | 60                   | 80                          | 80                          | 7/29                      | 25.0                   | 0.0                      |
| HYPERFORMER 1225 DR      | 58                   | 82                          | 80                          | 7/27                      | 22.5                   | 0.0                      |
| AGRATECH GK 802G         | 60                   | 78                          | 77                          | 7/28                      | 21.3                   | 0.0                      |
| FUNK'S G-522A            | 68                   | 73                          | 76                          | 7/27                      | 26.3                   | 0.0                      |
| SUMMIT HT-126DR          | 59                   | 80                          | 76                          | 7/28                      | 33.8                   | 0.0                      |
| CARGILL 5572             | 67                   | 78                          | 74                          | 7/30                      | 13.8                   | 0.0                      |
| NEW NK S9750             | 52                   | 74                          | 74                          | 7/28                      | 20.0                   | 0.0                      |
| AGRATECH GK 712G         | 59                   | 71                          | 73                          | 7/27                      | 18.8                   | 0.0                      |
| FUNK'S G-522DR           | 60                   | 75                          | 73                          | 7/29                      | 12.5                   | 0.0                      |
| FUNK'S G-1711            | 54                   | 69                          | 72                          | 7/28                      | 21.3                   | 0.0                      |
| CARGILL R1090            | 62                   | 73                          | 72                          | 7/27                      | 23.8                   | 0.0                      |
| FUNK'S RA 787            | 48                   | 66                          | 71                          | 7/26                      | 47.5                   | 0.0                      |
| FFR 321                  | 63                   | 67                          | 71                          | 7/26                      | 22.5                   | 0.0                      |
| FFR 421 DR               | 35                   | 68                          | 71                          | 7/24                      | 42.5                   | 0.0                      |
| HYPERFORMER 1330 DR      | 43                   | 64                          | 70                          | 7/28                      | 45.0                   | 0.0                      |
| DEKALB DK-64BR *         | 59                   | 80                          | 69                          | 7/31                      | 5.0                    | 0.0                      |
| PENN PENNGRAIN DR        | 47                   | 69                          | 69                          | 7/27                      | 43.8                   | 0.0                      |
| PIONEER 8333             | 52                   | 70                          | 69                          | 7/29                      | 31.3                   | 0.0                      |
| HYPERFORMER HONCHO       | 56                   | 64                          | 67                          | 7/27                      | 16.3                   | 0.0                      |
| CARGILL 4462             | 44                   | 64                          | 60                          | 7/28                      | 33.8                   | 0.0                      |
| DEKALB DK-64             | 27                   | 59                          | 60                          | 7/24                      | 63.8                   | 0.0                      |
| AGRATECH GK 552G         | 20                   | 39                          | 46                          | 7/22                      | 72.5                   | 0.0                      |
| HYPERFORMER HSC WINGS    | 63                   | 86                          | -                           | 7/29                      | 7.5                    | 0.0                      |
| DEKALB DK-49             | 48                   | 73                          | -                           | 7/28                      | 35.0                   | 0.0                      |
| CARGILL DR1125           | 52                   | 72                          | -                           | 7/28                      | 37.5                   | 0.0                      |
| CARGILL 6670             | 53                   | 70                          | -                           | 7/27                      | 17.5                   | 0.0                      |
| FUNK'S G-1602            | 13                   | 50                          | -                           | 7/24                      | 86.3                   | 0.0                      |
| SUMMIT SS-69             | 66                   | -                           | -                           | 7/30                      | 12.5                   | 0.0                      |
| PIONEER 8222             | 59                   | -                           | -                           | 7/30                      | 22.5                   | 0.0                      |
| CAPEHART CONTENDER       | 56                   | -                           | -                           | 7/27                      | 32.5                   | 0.0                      |
| CAPEHART CHALLENGER      | 55                   | -                           | -                           | 7/30                      | 18.8                   | 0.0                      |
| FFR 331                  | 55                   | -                           | -                           | 7/27                      | 28.8                   | 0.0                      |
| AFC 861                  | 50                   | -                           | -                           | 7/29                      | 33.8                   | 0.0                      |
| FUNK'S HW 7380           | 45                   | -                           | -                           | 7/30                      | 33.8                   | 0.0                      |
| HYPERFORMER HSC CHEROKEE | 36                   | -                           | -                           | 7/28                      | 53.8                   | 0.0                      |
| CAPEHART CHAMPION        | 36                   | -                           | -                           | 7/29                      | 42.5                   | 0.0                      |
| DEKALB X-732             | 13                   | -                           | -                           | 8/1                       | 87.5                   | 0.0                      |
| TEST MEAN                | 51                   |                             |                             |                           |                        |                          |
| L. S. D. (.05)           | 26.3                 |                             |                             |                           |                        |                          |
| C. V. (%)                | 36.5                 |                             |                             |                           |                        |                          |

\* BIRD-RESISTANT HYBRID.

TABLE 4. BELLE MINA GRAIN SORGHUM HYBRID TRIAL, 1988

| BRAND-HYBRID             | 1988<br>YIELD | 1987-88<br>2-YR. AV. | 1986-88<br>3-YR. AV. | 1988          |                |                  |
|--------------------------|---------------|----------------------|----------------------|---------------|----------------|------------------|
|                          |               |                      |                      | MID-<br>BLOOM | BIRD<br>DAMAGE | LODGED<br>STALKS |
|                          | BU.           | BU.                  | BU.                  | MO. /DAY      | PCT.           | PCT.             |
| NEW NK SAVANNA 5 *       | 81            | 100                  | 94                   | -             | 0.0            | 1.3              |
| FUNK'S RA 787            | 84            | 84                   | 85                   | -             | 5.0            | 0.0              |
| NEW NK S9750             | 100           | 87                   | 83                   | -             | 5.0            | 2.5              |
| AGRATECH GK 712G         | 80            | 83                   | 82                   | -             | 6.3            | 1.0              |
| SUMMIT HT-126DR          | 78            | 84                   | 82                   | -             | 8.8            | 0.5              |
| DEKALB M-565             | 82            | 82                   | 81                   | -             | 7.5            | 1.3              |
| AGRATECH GK 802G         | 79            | 85                   | 81                   | -             | 6.3            | 1.8              |
| NEW NK 2660              | 96            | 84                   | 81                   | -             | 6.3            | 3.0              |
| PIONEER 8333             | 74            | 81                   | 81                   | -             | 5.0            | 1.0              |
| FUNK'S G-522DR           | 60            | 72                   | 80                   | -             | 7.5            | 0.5              |
| CARGILL R1090            | 61            | 76                   | 79                   | -             | 7.5            | 6.0              |
| PENN PENNGRAIN DR        | 66            | 79                   | 78                   | -             | 6.3            | 2.5              |
| HYPERFORMER 1225 DR      | 70            | 76                   | 76                   | -             | 6.3            | 3.3              |
| CARGILL 5572             | 87            | 76                   | 76                   | -             | 7.5            | 0.5              |
| FFR 421 DR               | 63            | 76                   | 74                   | -             | 8.8            | 2.5              |
| FUNK'S G-522A            | 58            | 70                   | 73                   | -             | 8.8            | 1.8              |
| FUNK'S G-1711            | 75            | 75                   | 71                   | -             | 6.3            | 1.3              |
| DEKALB DK-64             | 78            | 77                   | 71                   | -             | 10.0           | 4.5              |
| HYPERFORMER 1330 DR      | 67            | 63                   | 70                   | -             | 6.3            | 1.3              |
| DEKALB DK-64BR *         | 49            | 66                   | 70                   | -             | 6.3            | 7.0              |
| CARGILL 4462             | 54            | 71                   | 69                   | -             | 11.3           | 4.0              |
| HYPERFORMER HONCHO       | 71            | 70                   | 68                   | -             | 8.8            | 0.0              |
| FFR 321                  | 69            | 60                   | 67                   | -             | 6.3            | 1.8              |
| AGRATECH GK 552G         | 54            | 64                   | 67                   | -             | 16.3           | 0.0              |
| CARGILL 6670             | 102           | 92                   | -                    | -             | 3.8            | 1.0              |
| DEKALB DK-49             | 85            | 85                   | -                    | -             | 7.5            | 1.8              |
| CARGILL DR1125           | 87            | 83                   | -                    | -             | 6.3            | 3.0              |
| FUNK'S G-1602            | 58            | 82                   | -                    | -             | 5.0            | 4.3              |
| HYPERFORMER HSC WINGS    | 80            | 82                   | -                    | -             | 7.5            | 1.3              |
| CAPEHART CHALLENGER      | 94            | -                    | -                    | -             | 5.0            | 3.0              |
| SUMMIT SS-69             | 93            | -                    | -                    | -             | 5.0            | 1.8              |
| DEKALB X-732             | 92            | -                    | -                    | -             | 2.5            | 1.8              |
| FUNK'S HW 7380           | 85            | -                    | -                    | -             | 3.8            | 0.0              |
| PIONEER 8222             | 85            | -                    | -                    | -             | 6.3            | 0.5              |
| AFC 861                  | 74            | -                    | -                    | -             | 6.3            | 1.8              |
| CAPEHART CHAMPION        | 73            | -                    | -                    | -             | 6.3            | 2.3              |
| CAPEHART CONTENDER       | 69            | -                    | -                    | -             | 10.0           | 1.5              |
| FFR 331                  | 61            | -                    | -                    | -             | 6.3            | 2.0              |
| HYPERFORMER HSC CHEROKEE | 56            | -                    | -                    | -             | 7.5            | 3.0              |
| TEST MEAN                | 75            |                      |                      |               |                |                  |
| L. S. D. (.05)           | 22.9          |                      |                      |               |                |                  |
| C. V. (%)                | 21.8          |                      |                      |               |                |                  |

\* BIRD-RESISTANT HYBRID.

TABLE 5. WINFIELD GRAIN-SORGHUM HYBRID TRIAL, 1988

| BRAND-HYBRID             | 1988<br>YIELD | 1986-88<br>2-YR. AV. | 1988          |                |                  |
|--------------------------|---------------|----------------------|---------------|----------------|------------------|
|                          |               |                      | MID-<br>BLOOM | BIRD<br>DAMAGE | LODGED<br>STALKS |
|                          | BU.           | BU.                  | MO. /DAY      | PCT.           | PCT.             |
| NEW NK SAVANNA 5 *       | 120           | 84                   | 7/13          | 0.0            | 0.0              |
| CARGILL 5572             | 111           | 82                   | 7/18          | 0.0            | 0.0              |
| HYPERFORMER 1330 DR      | 118           | 82                   | 7/14          | 0.0            | 0.0              |
| NEW NK S9750             | 121           | 81                   | 7/14          | 0.0            | 0.0              |
| DEKALB M-565             | 100           | 79                   | 7/14          | 0.0            | 0.0              |
| FFR 321                  | 99            | 79                   | 7/14          | 0.0            | 0.0              |
| SUMMIT HT-126DR          | 100           | 78                   | 7/15          | 0.0            | 0.0              |
| NEW NK 2660              | 105           | 77                   | 7/15          | 0.0            | 0.0              |
| FFR 331                  | 106           | 77                   | 7/14          | 0.0            | 0.0              |
| CARGILL 4462             | 114           | 76                   | 7/11          | 0.0            | 0.0              |
| AGRATECH GK 802G         | 97            | 76                   | 7/14          | 0.0            | 0.0              |
| HYPERFORMER 1225 DR      | 94            | 75                   | 7/13          | 0.0            | 0.0              |
| PIONEER 8222             | 96            | 75                   | 7/15          | 0.0            | 0.0              |
| FUNK'S G-1711            | 101           | 74                   | 7/18          | 0.0            | 0.0              |
| FUNK'S G-522DR           | 90            | 73                   | 7/15          | 0.0            | 0.0              |
| FUNK'S RA 787            | 93            | 73                   | 7/15          | 0.0            | 0.0              |
| CARGILL R1090            | 102           | 71                   | 7/14          | 0.0            | 0.0              |
| FFR 421 DR               | 86            | 70                   | 7/12          | 0.0            | 0.0              |
| DEKALB DK-64             | 100           | 69                   | 7/13          | 0.0            | 0.0              |
| FUNK'S G-522A            | 97            | 68                   | 7/17          | 0.0            | 0.0              |
| HYPERFORMER HONCHO       | 88            | 68                   | 7/11          | 0.0            | 0.0              |
| DEKALB DK-64BR *         | 98            | 66                   | 7/11          | 0.0            | 0.0              |
| PIONEER 8333             | 81            | 66                   | 7/11          | 0.0            | 0.0              |
| AGRATECH GK 712G         | 78            | 65                   | 7/11          | 0.0            | 0.0              |
| AGRATECH GK 552G         | 86            | 65                   | 7/11          | 0.0            | 0.0              |
| PENN PENNGRAIN DR        | 80            | 65                   | 7/14          | 0.0            | 0.0              |
| AFC 861                  | 123           | -                    | 7/15          | 0.0            | 0.0              |
| CARGILL 6670             | 120           | -                    | 7/21          | 0.0            | 0.0              |
| CAPEHART CHAMPION        | 118           | -                    | 7/21          | 0.0            | 0.0              |
| SUMMIT SS-69             | 112           | -                    | 7/15          | 0.0            | 0.0              |
| CAPEHART CHALLENGER      | 110           | -                    | 7/21          | 0.0            | 0.0              |
| CAPEHART CONTENDER       | 106           | -                    | 7/20          | 0.0            | 0.0              |
| CARGILL DR1125           | 104           | -                    | 7/15          | 0.0            | 0.0              |
| DEKALB DK-49             | 102           | -                    | 7/21          | 0.0            | 0.0              |
| FUNK'S HW 7380           | 102           | -                    | 7/18          | 0.0            | 0.0              |
| HYPERFORMER HSC CHEROKEE | 97            | -                    | 7/18          | 0.0            | 0.0              |
| DEKALB X-732             | 95            | -                    | 7/18          | 0.0            | 0.0              |
| HYPERFORMER HSC WINGS    | 93            | -                    | 7/15          | 0.0            | 0.0              |
| FUNK'S G-1602            | 88            | -                    | 7/21          | 0.0            | 0.0              |
| TEST MEAN                | 101           |                      |               |                |                  |
| L. S. D. (.05)           | 18.2          |                      |               |                |                  |
| C. V. (%)                | 12.9          |                      |               |                |                  |

\* BIRD-RESISTANT HYBRID.

TABLE 6. PRELIMINARY GRAIN SORGHUM HYBRID TRIAL, BELLE MINA, 1988

| BRAND-HYBRID         | 1988<br>YIELD | 1987-88<br>2-YR. AV. | 1988     |        |        |
|----------------------|---------------|----------------------|----------|--------|--------|
|                      |               |                      | MID-     | BIRD   | LODGED |
|                      |               |                      | BLOOM    | DAMAGE | STALKS |
|                      | BU.           | BU.                  | MO. /DAY | PCT.   | PCT.   |
| NEW NK SAVANNA 5 *   | 65            | 83                   | -        | 3.8    | 0.5    |
| DEKALB DK-64BR *     | 45            | 64                   | -        | 7.5    | 3.0    |
| FUNK'S G-522DR       | 13            | 55                   | -        | 56.3   | 0.3    |
| PIONEER 8333         | 19            | 53                   | -        | 36.3   | 0.0    |
| NEW NK X8539         | 34            | -                    | -        | 32.5   | 0.0    |
| TRIUMPH TWO 70-D     | 30            | -                    | -        | 33.8   | 0.5    |
| NEW NK X8641         | 24            | -                    | -        | 42.5   | 0.5    |
| TRIUMPH TWO 80-D     | 24            | -                    | -        | 47.5   | 0.0    |
| CAPEHART CREAM       | 22            | -                    | -        | 50.0   | 0.0    |
| TRIUMPH TWO 66YG     | 22            | -                    | -        | 38.8   | 0.8    |
| PIONEER 8230         | 21            | -                    | -        | 56.3   | 3.3    |
| SUMMIT XT-6770       | 21            | -                    | -        | 38.8   | 0.0    |
| DEKALB DK-66         | 20            | -                    | -        | 45.0   | 3.3    |
| SUMMIT XS-7711       | 20            | -                    | -        | 50.0   | 0.3    |
| DEKALB DK-64         | 18            | -                    | -        | 52.5   | 0.3    |
| AFC 471              | 16            | -                    | -        | 56.3   | 0.3    |
| TRIUMPH TR 74CR      | 11            | -                    | -        | 62.5   | 3.0    |
| DEKALB DK-50         | 10            | -                    | -        | 68.8   | 0.0    |
| AFC 402              | 6             | -                    | -        | 55.0   | 0.0    |
| CAPEHART CHARGER II  | 2             | -                    | -        | 83.8   | 0.3    |
| CAPEHART CHAMPION II | 2             | -                    | -        | 86.3   | 0.5    |
| TEST MEAN            | 21            |                      |          |        |        |
| L. S. D. (.05)       | 23.0          |                      |          |        |        |
| C. V. (%)            | 76.5          |                      |          |        |        |

\* BIRD-RESISTANT HYBRID.

TABLE 7. YIELD AND LODGING AVERAGES FOR CENTRAL ALABAMA,<sup>1</sup> 1986-88

| BRAND-HYBRID        | YIELD PER ACRE | LODGED STALKS |
|---------------------|----------------|---------------|
|                     | BU.            | PCT.          |
| NEW NK SAVANNA 5 *  | 51             | 3.2           |
| DEKALB DK-64BR *    | 50             | 14.4          |
| PIONEER 8333        | 48             | 0.9           |
| AGRATECH GK 712G    | 47             | 0.8           |
| FUNK'S G-522A       | 46             | 1.7           |
| FUNK'S RA 787       | 46             | 1.3           |
| FUNK'S G-1711       | 45             | 4.1           |
| PENN PENNGRAIN DR   | 45             | 3.1           |
| FUNK'S G-522DR      | 45             | 4.2           |
| FFR 421 DR          | 44             | 1.1           |
| NEW NK S9750        | 44             | 4.2           |
| SUMMIT HT-126DR     | 44             | 2.2           |
| DEKALB M-565        | 44             | 3.6           |
| CARGILL R1090       | 43             | 4.8           |
| HYPERFORMER 1330 DR | 42             | 4.9           |
| NEW NK 2660         | 42             | 4.0           |
| FFR 321             | 42             | 3.8           |
| HYPERFORMER 1225 DR | 41             | 1.6           |
| CARGILL 5572        | 41             | 2.3           |
| HYPERFORMER HONCHO  | 40             | 0.8           |
| CARGILL 4462        | 40             | 12.4          |
| AGRATECH GK 802G    | 39             | 3.8           |
| DEKALB DK-64        | 39             | 6.7           |
| AGRATECH GK 552G    | 34             | 3.2           |

<sup>1</sup>SHORTER AND PRATTVILLE. MARION JUNCTION DATA NOT INCLUDED  
DUE TO HEAVY SORGHUM MIDGE DAMAGE.

\* BIRD-RESISTANT HYBRID.

TABLE 8. PRATTVILLE GRAIN SORGHUM HYBRID TRIAL, 1988

| BRAND-HYBRID             | 1988  |           |           |          |        |        |
|--------------------------|-------|-----------|-----------|----------|--------|--------|
|                          | 1988  | 1987-88   | 1986-88   | MID-     | BIRD   | LODGED |
|                          | YIELD | 2-YR. AV. | 3-YR. AV. | BLOOM    | DAMAGE | STALKS |
|                          | BU.   | BU.       | BU.       | MO. /DAY | PCT.   | PCT.   |
| PIONEER 8333             | 31    | 48        | 46        | 6/24     | 35.0   | 0.0    |
| DEKALB DK-64BR *         | 45    | 50        | 46        | 6/25     | 21.3   | 0.0    |
| FUNK'S G-522A            | 33    | 46        | 43        | 6/21     | 37.5   | 0.0    |
| FUNK'S G-522DR           | 36    | 44        | 42        | 6/24     | 43.8   | 0.0    |
| AGRATECH GK 712G         | 29    | 43        | 42        | 6/22     | 27.5   | 0.0    |
| NEW NK SAVANNA 5 *       | 44    | 45        | 42        | 6/21     | 16.3   | 0.0    |
| FUNK'S RA 787            | 31    | 43        | 42        | 6/21     | 42.5   | 0.0    |
| NEW NK 2660              | 33    | 41        | 42        | 6/22     | 35.0   | 0.0    |
| PENN PENNGRAIN DR        | 31    | 39        | 40        | 6/23     | 42.5   | 0.0    |
| FFR 421 DR               | 30    | 38        | 40        | 6/21     | 35.0   | 0.0    |
| SUMMIT HT-126DR          | 31    | 40        | 40        | 6/22     | 43.8   | 0.0    |
| NEW NK S9750             | 34    | 41        | 39        | 6/23     | 33.8   | 0.0    |
| CARGILL R1090            | 38    | 38        | 39        | 6/21     | 40.0   | 0.0    |
| FFR 321                  | 36    | 36        | 38        | 6/23     | 40.0   | 0.0    |
| CARGILL 5572             | 26    | 37        | 38        | 6/22     | 42.5   | 0.0    |
| AGRATECH GK 802G         | 24    | 35        | 37        | 6/23     | 41.3   | 0.0    |
| HYPERFORMER 1225 DR      | 29    | 34        | 36        | 6/23     | 38.8   | 0.0    |
| CARGILL 4462             | 31    | 32        | 36        | 6/21     | 42.5   | 0.0    |
| DEKALB M-565             | 36    | 37        | 35        | 6/23     | 32.5   | 0.0    |
| FUNK'S G-1711            | 28    | 35        | 35        | 6/24     | 41.3   | 0.0    |
| AGRATECH GK 552G         | 25    | 34        | 34        | 6/19     | 43.8   | 0.0    |
| HYPERFORMER 1330 DR      | 30    | 32        | 34        | 6/23     | 32.5   | 0.0    |
| HYPERFORMER HONCHO       | 25    | 30        | 33        | 6/22     | 41.3   | 0.0    |
| DEKALB DK-64             | 20    | 28        | 31        | 6/20     | 73.8   | 0.0    |
| FUNK'S G-1602            | 27    | 40        | -         | 6/20     | 48.8   | 0.0    |
| CARGILL DR1125           | 23    | 38        | -         | 6/23     | 49.0   | 0.0    |
| CARGILL 6670             | 30    | 35        | -         | 6/23     | 37.5   | 0.0    |
| DEKALB DK-49             | 31    | 34        | -         | 6/24     | 32.5   | 0.0    |
| HYPERFORMER HSC WINGS    | 29    | 32        | -         | 6/24     | 35.0   | 0.0    |
| CAPEHART CHAMPION        | 35    | -         | -         | 6/23     | 30.0   | 0.0    |
| CAPEHART CONTENDER       | 35    | -         | -         | 6/23     | 30.0   | 0.0    |
| FFR 331                  | 33    | -         | -         | 6/23     | 33.8   | 0.0    |
| SUMMIT SS-69             | 32    | -         | -         | 6/24     | 38.8   | 0.0    |
| CAPEHART CHALLENGER      | 30    | -         | -         | 6/23     | 38.8   | 0.0    |
| HYPERFORMER HSC CHEROKEE | 29    | -         | -         | 6/23     | 32.5   | 0.0    |
| AFC 861                  | 29    | -         | -         | 6/24     | 31.3   | 0.0    |
| PIONEER 8222             | 28    | -         | -         | 6/25     | 30.0   | 0.0    |
| FUNK'S HW 7380           | 26    | -         | -         | 6/28     | 23.8   | 0.0    |
| DEKALB X-732             | 25    | -         | -         | 6/24     | 40.0   | 0.0    |
| TEST MEAN                | 31    |           |           |          |        |        |
| L. S. D. (.05)           | 10.2  |           |           |          |        |        |
| C. V. (%)                | 23.6  |           |           |          |        |        |

\* BIRD-RESISTANT HYBRID.



TABLE 9. SHORTER GRAIN SORGHUM HYBRID TRIAL, 1988

| BRAND-HYBRID             | 1988  |           |           |          |        |        |
|--------------------------|-------|-----------|-----------|----------|--------|--------|
|                          | 1988  | 1987-88   | 1986-88   | MID-     | BIRD   | LODGED |
|                          | YIELD | 2-YR. AV. | 3-YR. AV. | BLOOM    | DAMAGE | STALKS |
|                          | BU.   | BU.       | BU.       | MO. /DAY | PCT.   | PCT.   |
| NEW NK SAVANNA 5 *       | 64    | 69        | 59        | 7/16     | 0.0    | 12.3   |
| PIONEER 8333             | 66    | 59        | 52        | 7/16     | 0.0    | 1.0    |
| AGRATECH GK 712G         | 62    | 59        | 52        | 7/16     | 0.0    | 3.8    |
| FUNK'S G-1711            | 59    | 57        | 50        | 7/17     | 0.3    | 18.0   |
| DEKALB DK-64BR *         | 39    | 51        | 50        | 7/19     | 0.0    | 35.3   |
| DEKALB M-565             | 57    | 57        | 48        | 7/14     | 0.0    | 11.8   |
| FUNK'S G-522A            | 58    | 56        | 46        | 7/15     | 0.0    | 7.8    |
| FFR 421 DR               | 53    | 54        | 46        | 7/13     | 0.0    | 3.0    |
| FUNK'S RA 787            | 49    | 52        | 45        | 7/15     | 0.3    | 4.5    |
| NEW NK S9750             | 42    | 52        | 45        | 7/18     | 0.0    | 21.8   |
| HYPERFORMER HONCHO       | 51    | 49        | 45        | 7/17     | 0.0    | 4.0    |
| HYPERFORMER 1225 DR      | 61    | 54        | 44        | 7/15     | 0.0    | 4.0    |
| SUMMIT HT-126DR          | 55    | 56        | 44        | 7/14     | 0.0    | 7.5    |
| CARGILL 4462             | 41    | 46        | 43        | 7/13     | 0.0    | 43.8   |
| PENN PENNGRAIN DR        | 54    | 53        | 42        | 7/15     | 0.3    | 7.5    |
| HYPERFORMER 1330 DR      | 44    | 49        | 42        | 7/18     | 0.0    | 19.5   |
| CARGILL R1090            | 54    | 49        | 41        | 7/13     | 0.0    | 9.0    |
| FUNK'S G-522DR           | 49    | 50        | 41        | 7/17     | 0.3    | 17.5   |
| NEW NK 2660              | 37    | 44        | 39        | 7/17     | 0.3    | 20.0   |
| FFR 321                  | 53    | 49        | 39        | 7/14     | 3.8    | 11.3   |
| AGRATECH GK 802G         | 43    | 44        | 38        | 7/17     | 0.0    | 13.3   |
| CARGILL 5572             | 48    | 48        | 38        | 7/15     | 0.0    | 11.8   |
| DEKALB DK-64             | 38    | 36        | 37        | 7/13     | 0.5    | 32.5   |
| AGRATECH GK 552G         | 34    | 35        | 31        | 7/10     | 0.0    | 8.3    |
| DEKALB DK-49             | 57    | 57        | -         | 7/18     | 0.0    | 13.3   |
| CARGILL 6670             | 52    | 54        | -         | 7/15     | 0.0    | 20.8   |
| FUNK'S G-1602            | 46    | 53        | -         | 7/11     | 0.0    | 6.8    |
| HYPERFORMER HSC WINGS    | 49    | 51        | -         | 7/18     | 0.3    | 18.8   |
| CARGILL DR1125           | 49    | 47        | -         | 7/15     | 0.0    | 16.3   |
| DEKALB X-732             | 72    | -         | -         | 7/20     | 0.0    | 3.3    |
| PIONEER 8222             | 64    | -         | -         | 7/18     | 0.0    | 1.8    |
| FUNK'S HW 7380           | 62    | -         | -         | 7/17     | 0.0    | 2.5    |
| CAPEHART CONTENDER       | 62    | -         | -         | 7/16     | 0.0    | 17.5   |
| HYPERFORMER HSC CHEROKEE | 56    | -         | -         | 7/16     | 0.0    | 18.8   |
| CAPEHART CHALLENGER      | 55    | -         | -         | 7/18     | 0.5    | 16.3   |
| AFC 861                  | 52    | -         | -         | 7/17     | 0.0    | 15.3   |
| FFR 331                  | 46    | -         | -         | 7/18     | 0.0    | 35.0   |
| SUMMIT SS-69             | 45    | -         | -         | 7/18     | 0.0    | 18.8   |
| CAPEHART CHAMPION        | 30    | -         | -         | 7/18     | 0.5    | 51.3   |
| TEST MEAN                | 51    |           |           |          |        |        |
| L. S. D. (.05)           | 19.2  |           |           |          |        |        |
| C. V. (%)                | 26.7  |           |           |          |        |        |

\* BIRD-RESISTANT HYBRID.

TABLE 10. PRELIMINARY GRAIN SORGHUM HYBRID TRIAL, SHORTER, 1988

| BRAND-HYBRID         | 1988<br>YIELD | 1987-88<br>2-YR. AV. | 1988          |                |                  |
|----------------------|---------------|----------------------|---------------|----------------|------------------|
|                      |               |                      | MID-<br>BLOOM | BIRD<br>DAMAGE | LODGED<br>STALKS |
|                      | BU.           | BU.                  | MO. /DAY      | PCT.           | PCT.             |
| NEW NK SAVANNA 5 *   | 73            | 78                   | 7/18          | 0.0            | 2.5              |
| DEKALB DK-64BR *     | 82            | 74                   | 7/19          | 0.0            | 4.5              |
| PIONEER 8333         | 53            | 49                   | 7/17          | 1.3            | 2.0              |
| FUNK'S G-522DR       | 42            | 49                   | 7/16          | 0.8            | 3.5              |
| DEKALB DK-66         | 66            | -                    | 7/23          | 1.5            | 9.0              |
| CAPEHART CREAM       | 58            | -                    | 7/18          | 0.3            | 2.3              |
| AFC 402              | 58            | -                    | 7/18          | 0.0            | 2.3              |
| TRIUMPH TR 74CR      | 58            | -                    | 7/12          | 3.5            | 1.3              |
| NEW NK X8641         | 53            | -                    | 7/17          | 1.3            | 4.3              |
| DEKALB DK-64         | 53            | -                    | 7/14          | 0.3            | 31.5             |
| TRIUMPH TWO 70-D     | 51            | -                    | 7/15          | 1.3            | 3.3              |
| NEW NK X8539         | 50            | -                    | 7/15          | 1.5            | 3.3              |
| PIONEER 8230         | 50            | -                    | 7/19          | 1.0            | 6.5              |
| TRIUMPH TWO 80-D     | 49            | -                    | 7/18          | 3.3            | 18.8             |
| CAPEHART CHAMPION II | 45            | -                    | 7/12          | 1.3            | 11.5             |
| SUMMIT XS-7711       | 43            | -                    | 7/18          | 2.0            | 7.8              |
| TRIUMPH TWO 66YG     | 43            | -                    | 7/13          | 1.0            | 1.8              |
| DEKALB DK-50         | 40            | -                    | 7/14          | 0.3            | 42.5             |
| AFC 471              | 38            | -                    | 7/12          | 2.5            | 14.0             |
| SUMMIT XT-6770       | 31            | -                    | 7/12          | 0.0            | 22.5             |
| CAPEHART CHARGER II  | 19            | -                    | 7/10          | 0.0            | 22.8             |
| TEST MEAN            | 50            |                      |               |                |                  |
| L. S. D. (.05)       | 13.3          |                      |               |                |                  |
| C. V. (%)            | 18.7          |                      |               |                |                  |

\* BIRD-RESISTANT HYBRID.

TABLE 11. YIELD AND LODGING AVERAGES FOR SOUTHERN ALABAMA,<sup>1</sup> 1986-88

| BRAND-HYBRID        | YIELD PER ACRE | LODGED STALKS |
|---------------------|----------------|---------------|
|                     | BU.            | PCT.          |
| CARGILL R1090       | 61             | 5.9           |
| NEW NK 2660         | 60             | 2.0           |
| PIONEER 8333        | 60             | 1.5           |
| FUNK'S G-522DR      | 59             | 2.9           |
| SUMMIT HT-126DR     | 59             | 0.7           |
| DEKALB M-565        | 58             | 2.1           |
| CARGILL 4462        | 58             | 11.0          |
| FFR 321             | 58             | 5.8           |
| PENN PENNGRAIN DR   | 58             | 1.6           |
| NEW NK S9750        | 57             | 3.4           |
| AGRATECH GK 802G    | 56             | 2.5           |
| AGRATECH GK 712G    | 56             | 2.6           |
| FUNK'S G-1711       | 56             | 3.3           |
| DEKALB DK-64BR *    | 56             | 12.4          |
| FUNK'S G-522A       | 55             | 2.1           |
| FUNK'S RA 787       | 55             | 1.5           |
| HYPERFORMER 1225 DR | 55             | 1.6           |
| NEW NK SAVANNA 5 *  | 55             | 5.9           |
| FFR 421 DR          | 54             | 1.7           |
| CARGILL 5572        | 54             | 0.9           |
| HYPERFORMER HONCHO  | 53             | 0.3           |
| DEKALB DK-64        | 52             | 10.3          |
| HYPERFORMER 1330 DR | 51             | 7.4           |
| AGRATECH GK 552G    | 50             | 1.8           |

<sup>1</sup>HEADLAND, MONROEVILLE, AND FAIRHOPE.  
 \* BIRD-RESISTANT HYBRID.

TABLE 12. MONROEVILLE GRAIN SORGHUM HYBRID TRIAL, 1988

| BRAND-HYBRID             | 1988  |           |           |          |        |        |
|--------------------------|-------|-----------|-----------|----------|--------|--------|
|                          | 1988  | 1987-88   | 1986-88   | MID-     | BIRD   | LODGED |
|                          | YIELD | 2-YR. AV. | 3-YR. AV. | BLOOM    | DAMAGE | STALKS |
|                          | BU.   | BU.       | BU.       | MO. /DAY | PCT.   | PCT.   |
| HYPERFORMER 1330 DR      | 76    | 77        | 72        | 7/7      | -      | 0.0    |
| CARGILL R1090            | 80    | 77        | 69        | 7/4      | -      | 0.0    |
| DEKALB DK-64BR *         | 80    | 80        | 69        | 7/7      | -      | 0.0    |
| DEKALB M-565             | 76    | 73        | 68        | 7/8      | -      | 0.0    |
| FUNK'S G-522DR           | 81    | 74        | 67        | 7/6      | -      | 0.0    |
| PIONEER 8333             | 77    | 74        | 67        | 7/9      | -      | 0.0    |
| DEKALB DK-64             | 78    | 76        | 66        | 7/3      | -      | 0.0    |
| FFR 321                  | 73    | 71        | 66        | 7/4      | -      | 0.0    |
| NEW NK S9750             | 79    | 72        | 66        | 7/8      | -      | 0.0    |
| SUMMIT HT-126DR          | 71    | 73        | 66        | 7/6      | -      | 0.0    |
| NEW NK 2660              | 73    | 73        | 66        | 7/5      | -      | 0.0    |
| FUNK'S RA 787            | 69    | 72        | 65        | 7/5      | -      | 0.0    |
| FUNK'S G-1711            | 68    | 67        | 65        | 7/7      | -      | 0.0    |
| AGRATECH GK 802G         | 70    | 70        | 63        | 7/6      | -      | 0.0    |
| PENN PENNGRAIN DR        | 65    | 69        | 63        | 7/6      | -      | 0.0    |
| HYPERFORMER 1225 DR      | 69    | 67        | 61        | 7/6      | -      | 0.0    |
| NEW NK SAVANNA 5 *       | 80    | 77        | 61        | 7/8      | -      | 0.0    |
| CARGILL 5572             | 70    | 65        | 61        | 7/6      | -      | 0.0    |
| FUNK'S G-522A            | 62    | 63        | 60        | 7/5      | -      | 0.0    |
| CARGILL 4462             | 74    | 69        | 59        | 7/3      | -      | 0.0    |
| FFR 421 DR               | 66    | 60        | 58        | 7/4      | -      | 0.0    |
| AGRATECH GK 712G         | 66    | 68        | 58        | 7/7      | -      | 0.0    |
| AGRATECH GK 552G         | 73    | 65        | 57        | 6/28     | -      | 0.0    |
| HYPERFORMER HONCHO       | 65    | 66        | 55        | 7/7      | -      | 0.0    |
| CARGILL 6670             | 79    | 76        | -         | 7/8      | -      | 0.0    |
| DEKALB DK-49             | 71    | 74        | -         | 7/8      | -      | 0.0    |
| HYPERFORMER HSC WINGS    | 75    | 74        | -         | 7/8      | -      | 0.0    |
| CARGILL DR1125           | 69    | 69        | -         | 7/6      | -      | 0.0    |
| FUNK'S G-1602            | 54    | 60        | -         | 7/3      | -      | 0.0    |
| PIONEER 8222             | 80    | -         | -         | 7/9      | -      | 0.0    |
| AFC 861                  | 76    | -         | -         | 7/8      | -      | 0.0    |
| FFR 331                  | 76    | -         | -         | 7/7      | -      | 0.0    |
| CAPEHART CHAMPION        | 72    | -         | -         | 7/9      | -      | 0.0    |
| SUMMIT SS-69             | 71    | -         | -         | 7/9      | -      | 0.0    |
| CAPEHART CHALLENGER      | 69    | -         | -         | 7/9      | -      | 0.0    |
| CAPEHART CONTENDER       | 68    | -         | -         | 7/3      | -      | 0.0    |
| HYPERFORMER HSC CHEROKEE | 64    | -         | -         | 7/7      | -      | 0.0    |
| FUNK'S HW 7380           | 62    | -         | -         | 7/9      | -      | 0.0    |
| DEKALB X-732             | 54    | -         | -         | 7/10     | -      | 0.0    |
| TEST MEAN                | 71    |           |           |          |        |        |
| L. S. D. (.05)           | 11.8  |           |           |          |        |        |
| C. V. (%)                | 11.9  |           |           |          |        |        |

\* BIRD-RESISTANT HYBRID.

TABLE 13. FAIRHOPE GRAIN SORGHUM HYBRID TRIAL, 1988

| BRAND-HYBRID             | 1988  |           |           |          |        |        |
|--------------------------|-------|-----------|-----------|----------|--------|--------|
|                          | 1988  | 1987-88   | 1986-88   | MID-     | BIRD   | LODGED |
|                          | YIELD | 2-YR. AV. | 3-YR. AV. | BLOOM    | DAMAGE | STALKS |
|                          | BU.   | BU.       | BU.       | MO. /DAY | PCT.   | PCT.   |
| CARGILL 4462             | 61    | 72        | 85        | 6/20     | 17.5   | 5.0    |
| CARGILL R1090            | 65    | 62        | 78        | 6/22     | 15.0   | 5.0    |
| NEW NK 2660              | 72    | 61        | 78        | 6/22     | 15.0   | 0.0    |
| PENN PENNGRAIN DR        | 63    | 63        | 76        | 6/23     | 20.0   | 0.0    |
| FUNK'S G-522DR           | 77    | 61        | 75        | 6/22     | 12.5   | 1.3    |
| FUNK'S G-522A            | 70    | 63        | 74        | 6/23     | 21.3   | 0.0    |
| PIONEER 8333             | 55    | 61        | 74        | 6/24     | 18.8   | 0.0    |
| SUMMIT HT-126DR          | 60    | 60        | 74        | 6/23     | 17.5   | 0.0    |
| AGRATECH GK 712G         | 65    | 61        | 74        | 6/23     | 13.8   | 0.0    |
| FFR 421 DR               | 65    | 62        | 73        | 6/19     | 13.8   | 0.0    |
| DEKALB M-565             | 69    | 59        | 73        | 6/23     | 18.8   | 0.0    |
| AGRATECH GK 802G         | 56    | 57        | 72        | 6/23     | 21.3   | 0.0    |
| FFR 321                  | 78    | 55        | 72        | 6/22     | 12.5   | 0.0    |
| NEW NK S9750             | 65    | 53        | 70        | 6/23     | 28.8   | 0.0    |
| HYPERFORMER HONCHO       | 74    | 63        | 70        | 6/23     | 15.0   | 0.0    |
| HYPERFORMER 1225 DR      | 74    | 54        | 68        | 6/23     | 16.3   | 0.0    |
| FUNK'S G-1711            | 58    | 49        | 68        | 6/24     | 15.0   | 0.0    |
| CARGILL 5572             | 62    | 53        | 65        | 6/23     | 18.8   | 0.0    |
| AGRATECH GK 552G         | 54    | 49        | 64        | 6/18     | 13.8   | 2.5    |
| FUNK'S RA 787            | 63    | 46        | 63        | 6/22     | 20.0   | 0.0    |
| NEW NK SAVANNA 5 *       | 32    | 41        | 62        | 6/22     | 20.0   | 0.0    |
| DEKALB DK-64BR *         | 43    | 42        | 60        | 6/26     | 26.3   | 0.0    |
| DEKALB DK-64             | 35    | 31        | 51        | 6/21     | 30.0   | 37.5   |
| HYPERFORMER 1330 DR      | 44    | 37        | 48        | 6/24     | 32.5   | 0.0    |
| FUNK'S G-1602            | 62    | 56        | -         | 6/21     | 13.8   | 0.0    |
| CARGILL DR1125           | 57    | 49        | -         | 6/23     | 28.8   | 0.0    |
| CARGILL 6670             | 59    | 46        | -         | 6/23     | 23.8   | 0.0    |
| HYPERFORMER HSC WINGS    | 56    | 45        | -         | 6/24     | 22.5   | 0.0    |
| DEKALB DK-49             | 42    | 38        | -         | 6/24     | 36.3   | 0.0    |
| CAPEHART CONTENDER       | 66    | -         | -         | 6/23     | 22.5   | 0.0    |
| SUMMIT SS-69             | 64    | -         | -         | 6/24     | 21.3   | 0.0    |
| PIONEER 8222             | 64    | -         | -         | 6/25     | 12.5   | 0.0    |
| HYPERFORMER HSC CHEROKEE | 63    | -         | -         | 6/24     | 15.0   | 0.0    |
| CAPEHART CHALLENGER      | 56    | -         | -         | 6/24     | 18.8   | 0.0    |
| AFC 861                  | 46    | -         | -         | 6/24     | 25.0   | 0.0    |
| FFR 331                  | 43    | -         | -         | 6/22     | 23.8   | 0.0    |
| DEKALB X-732             | 40    | -         | -         | 6/27     | 27.5   | 0.0    |
| FUNK'S HW 7380           | 35    | -         | -         | 6/28     | 25.0   | 0.0    |
| CAPEHART CHAMPION        | 33    | -         | -         | 6/23     | 31.3   | 0.0    |
| TEST MEAN                | 58    |           |           |          |        |        |
| L. S. D. (.05)           | 16.9  |           |           |          |        |        |
| C. V. (%)                | 21.0  |           |           |          |        |        |

\* BIRD-RESISTANT HYBRID.

TABLE 14. HEADLAND GRAIN SORGHUM HYBRID TRIAL, 1988

| BRAND-HYBRID             | 1988  |           |           |           |        |        |
|--------------------------|-------|-----------|-----------|-----------|--------|--------|
|                          | 1988  | 1987-88   | 1986-88   | MID-      | BIRD   | LODGED |
|                          | YIELD | 2-YR. AV. | 3-YR. AV. | BLOOM     | DAMAGE | STALKS |
|                          | BU.   | BU.       | BU.       | MO. / DAY | PCT.   | PCT.   |
| NEW NK SAVANNA 5 *       | 64    | 41        | 42        | 6/18      | -      | 0.0    |
| DEKALB DK-64BR *         | 48    | 35        | 39        | 6/26      | -      | 0.0    |
| DEKALB DK-64             | 54    | 33        | 38        | 6/18      | -      | 0.0    |
| PIONEER 8333             | 52    | 32        | 37        | 6/23      | -      | 0.0    |
| FUNK'S RA 787            | 58    | 32        | 37        | 6/18      | -      | 0.0    |
| CARGILL R1090            | 54    | 31        | 37        | 6/28      | -      | 0.0    |
| AGRATECH GK 712G         | 54    | 33        | 37        | 6/20      | -      | 0.0    |
| FFR 321                  | 51    | 29        | 36        | 6/23      | -      | 2.5    |
| FUNK'S G-522DR           | 52    | 32        | 36        | 6/26      | -      | 0.0    |
| NEW NK 2660              | 50    | 30        | 36        | 6/23      | -      | 0.0    |
| CARGILL 5572             | 56    | 32        | 35        | 6/28      | -      | 0.0    |
| HYPERFORMER 1225 DR      | 51    | 30        | 35        | 6/28      | -      | 0.0    |
| SUMMIT HT-126DR          | 58    | 33        | 35        | 6/23      | -      | 0.0    |
| FUNK'S G-1711            | 38    | 24        | 35        | 6/26      | -      | 0.0    |
| PFNN PENNGRAIN DR        | 51    | 29        | 34        | 6/23      | -      | 0.0    |
| AGRATECH GK 802G         | 50    | 29        | 34        | 6/26      | -      | 0.0    |
| DEKALB M-565             | 51    | 31        | 34        | 6/23      | -      | 0.0    |
| HYPERFORMER 1330 DR      | 53    | 30        | 34        | 6/23      | -      | 0.0    |
| NEW NK S9750             | 52    | 30        | 34        | 6/28      | -      | 0.0    |
| HYPERFORMER HONCHO       | 42    | 24        | 33        | 6/20      | -      | 0.0    |
| FFR 421 DR               | 54    | 32        | 33        | 6/18      | -      | 0.0    |
| FUNK'S G-522A            | 47    | 29        | 32        | 6/23      | -      | 0.0    |
| CARGILL 4462             | 54    | 31        | 32        | 6/20      | -      | 0.0    |
| AGRATECH GK 552G         | 48    | 26        | 29        | 6/18      | -      | 0.0    |
| FUNK'S G-1602            | 60    | 36        | -         | 6/18      | -      | 0.0    |
| DEKALB DK-49             | 55    | 35        | -         | 6/28      | -      | 0.0    |
| CARGILL DR1125           | 55    | 32        | -         | 6/23      | -      | 0.0    |
| CARGILL 6670             | 51    | 32        | -         | 6/26      | -      | 0.0    |
| HYPERFORMER HSC WINGS    | 50    | 30        | -         | 6/26      | -      | 0.0    |
| CAPEHART CHAMPION        | 54    | -         | -         | 6/26      | -      | 0.0    |
| HYPERFORMER HSC CHEROKEE | 50    | -         | -         | 6/28      | -      | 0.0    |
| CAPEHART CHALLENGER      | 50    | -         | -         | 6/28      | -      | 0.0    |
| AFC 861                  | 49    | -         | -         | 6/26      | -      | 0.0    |
| FFR 331                  | 49    | -         | -         | 6/28      | -      | 0.0    |
| CAPEHART CONTENDER       | 48    | -         | -         | 6/26      | -      | 0.0    |
| DEKALB X-732             | 47    | -         | -         | 6/26      | -      | 0.0    |
| SUMMIT SS-69             | 45    | -         | -         | 6/26      | -      | 0.0    |
| PIONEER 8222             | 44    | -         | -         | 6/26      | -      | 0.0    |
| FUNK'S HW 7380           | 40    | -         | -         | 6/26      | -      | 0.0    |
| TEST MEAN                | 51    |           |           |           |        |        |
| L. S. D. (.05)           | 11.0  |           |           |           |        |        |
| C. V. (%)                | 15.3  |           |           |           |        |        |

\* BIRD-RESISTANT HYBRID.

TABLE 15. PLANT HEIGHT OF GRAIN SORGHUM HYBRIDS BY REGION OR LOCATION,<sup>1</sup> 1988

| BRAND-HYBRID             | PLANT HEIGHT BY REGION |         |          |          |
|--------------------------|------------------------|---------|----------|----------|
|                          | NORTHERN               | CENTRAL | SOUTHERN | FAIRHOPE |
|                          | IN.                    | IN.     | IN.      | IN.      |
| AFC 861                  | 44                     | 41      | 41       | 51       |
| AGRATECH GK 552G         | 41                     | 39      | 40       | 55       |
| AGRATECH GK 712G         | 37                     | 37      | 39       | 44       |
| AGRATECH GK 802G         | 41                     | 39      | 40       | 48       |
| CAPEHART CHALLENGER      | 45                     | 41      | 43       | 52       |
| CAPEHART CHAMPION        | 50                     | 45      | 45       | 56       |
| CAPEHART CONTENDER       | 42                     | 39      | 40       | 46       |
| CARGILL DR1125           | 42                     | 37      | 40       | 48       |
| CARGILL R1090            | 42                     | 39      | 40       | 46       |
| CARGILL 4462             | 44                     | 39      | 43       | 51       |
| CARGILL 5572             | 43                     | 39      | 41       | 49       |
| CARGILL 6670             | 45                     | 41      | 42       | 51       |
| DEKALB DK-49             | 47                     | 42      | 41       | 54       |
| DEKALB DK-64             | 47                     | 47      | 43       | 51       |
| DEKALB DK-64BR *         | 59                     | 49      | 47       | 57       |
| DEKALB M-565             | 41                     | 39      | 40       | 48       |
| DEKALB X-732             | 48                     | 41      | 44       | 52       |
| FFR 321                  | 41                     | 39      | 39       | 49       |
| FFR 331                  | 52                     | 45      | 45       | 55       |
| FFR 421 DR               | 42                     | 41      | 40       | 50       |
| FUNK'S G-1602            | 42                     | 41      | 39       | 49       |
| FUNK'S G-1711            | 45                     | 41      | 41       | 50       |
| FUNK'S G-522A            | 40                     | 38      | 41       | 45       |
| FUNK'S G-522DR           | 41                     | 40      | 40       | 48       |
| FUNK'S HW 7380           | 44                     | 38      | 41       | 50       |
| FUNK'S RA 787            | 45                     | 40      | 44       | 51       |
| HYPERFORMER HONCHO       | 37                     | 36      | 37       | 45       |
| HYPERFORMER HSC CHEROKEE | 44                     | 41      | 42       | 51       |
| HYPERFORMER HSC WINGS    | 45                     | 40      | 40       | 55       |
| HYPERFORMER 1225 DR      | 41                     | 39      | 38       | 49       |
| HYPERFORMER 1330 DR      | 51                     | 44      | 45       | 59       |
| NEW NK SAVANNA 5 *       | 57                     | 53      | 51       | 61       |
| NEW NK S9750             | 46                     | 41      | 43       | 51       |
| NEW NK 2660              | 42                     | 39      | 40       | 47       |
| PENN PENNGRAIN DR        | 41                     | 40      | 38       | 48       |
| PIONEER 8222             | 42                     | 39      | 42       | 49       |
| PIONEER 8333             | 40                     | 38      | 41       | 48       |
| SUMMIT HT-126DR          | 40                     | 39      | 39       | 46       |
| SUMMIT SS-69             | 44                     | 41      | 41       | 53       |

<sup>1</sup>NORTHERN REGION (BELLE MINA, WINFIELD, AND CROSSVILLE); CENTRAL REGION (PRATTVILLE AND SHORTER); SOUTHERN REGION (MONROEVILLE AND HEADLAND).

Sources of Seed for the 1988 Grain Sorghum Tests

| Entry designation                    | Source of seed   |
|--------------------------------------|--|
| AFC brand hybrids.....               | Alabama Farmer's Cooperative<br>P.O. Box 2227<br>Decatur, AL 35602                       |
| AgraTech brand hybrids.....          | AgraTech Seeds, Inc.<br>P.O. Box 644<br>Ashburn, GA 31714                                |
| Capehart brand hybrids.....          | Capehart Seed Service<br>P.O. Box 10<br>Holland, MO 63853                                |
| Cargill brand hybrids.....           | Cargill Hybrid Seeds<br>Box 5645<br>Minneapolis, MN 55440                                |
| DeKalb brand hybrids.....            | DeKalb-Pfizer Genetics<br>3100 Sycamore Road<br>DeKalb, IL 60115                         |
| FFR brand hybrids.....               | Alabama Farmer's Cooperative<br>P.O. Box 2227<br>Decatur, AL 35602                       |
| Funk's brand hybrids.....            | Funk Seeds International<br>P.O. Box 280<br>Senatobia, MS 38668                          |
| HyPerformer brand hybrids.....       | HyPerformer Seed Company<br>5100 Poplar Avenue<br>Memphis, TN 38137                      |
| New Northrup King brand hybrids..... | The New Northrup King Company<br>R. R. #2 Box 200<br>Highland, IL 62249-9667             |
| Pennington brand hybrids.....        | Pennington Enterprises, Inc.<br>P.O. Box 290<br>Madison, GA 30650                        |
| Pioneer brand hybrids.....           | Pioneer Hi-Bred International,<br>Inc.<br>1000 West Jefferson Street<br>Tipton, IN 46072 |

(continued on following page)



Sources of Seed for the 1988 Grain Sorghum Tests (continued)

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| Entry designation          | Source of seed   |
|----------------------------|--|
| Summit brand hybrids.....  | Summit Seed Company<br>P.O. Box 10121<br>Lubbock, TX 79408     |
| Triumph brand hybrids..... | Triumph Seed Company, Inc.<br>P.O. Box 1050<br>Ralls, TX 79357 |

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ACCEPTABLE HYBRIDS FOR 1989

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

CENTRAL ALABAMA

| <u>Brand name</u> | <u>Hybrid</u> | <u>Brand name</u> | <u>Hybrid</u> |
|-------------------|---------------|-------------------|---------------|
| New Northrup King | Savanna 5 *   | New Northrup King | Savanna 5 *   |
| DeKalb            | M-565         | DeKalb            | DK-64BR *     |
| Summit            | HT-126DR      | Pioneer           | 8333          |
| New Northrup King | 2660          | AgraTech          | GK 712G       |
| AgraTech          | GK 802G       | Funk's            | G-522A        |
| New Northrup King | S9750         | Funk's            | RA 787        |
| HyPerformer       | 1225DR        | Funk's            | G-1711        |
| Funk's            | RA 787        | Pennington        | Penngrain DR  |
| Funk's            | G-522DR       | Funk's            | G-522DR       |
| Cargill           | 5572          | FFR               | 421DR         |
| AgraTech          | GK 712G       | New Northrup King | S9750         |
| Cargill           | R1090         | Summit            | HT-126DR      |
| Pioneer           | 8333          | DeKalb            | M-565         |
| FFR               | 421DR         | Cargill           | R1090         |
| Funk's            | G-522A        | HyPerformer       | 1330DR **     |
| HyPerformer       | 1330DR **     | New Northrup King | 2660 **       |
|                   |               | HyPerformer       | 1225DR **     |
|                   |               | AgraTech          | GK 802G **    |

\*Bird-resistant hybrid.

\*\*If the present trend of these varieties continues, they will be dropped.

ACCEPTABLE HYBRIDS FOR 1989

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.

SOUTHERN ALABAMA

| <u>Brand name</u> | <u>Hybrid</u> |
|-------------------|---------------|
| Cargill           | R1090         |
| New Northrup King | 2660          |
| Pioneer           | 8333          |
| Funk's            | G-522DR       |
| Summit            | HT-126DR      |
| DeKalb            | M-565         |
| Cargill           | 4462          |
| FFR               | 321           |
| Pennington        | Penngrain DR  |
| New Northrup King | S9750         |
| AgraTech          | GK 802G       |
| AgraTech          | GK 712G       |
| Funk's            | G-1711        |
| DeKalb            | DK-64BR *     |
| New Northrup King | Savanna 5 *   |
| Funk's            | G-522A **     |
| HyPerformer       | 1225DR **     |
| FFR               | 421DR **      |
| HyPerformer       | Honcho **     |
| HyPerformer       | 1330DR ***    |

\*Bird-resistant hybrid.

\*\*If the present trend of these varieties continues, they will be dropped.





