

# **Grain Sorghum Hybrid Tests in Tennessee**

## **2008**

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Variety test results are posted on UT's website at:

**<http://varietytrials.tennessee.edu/>  
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### County Standard Grain Sorghum Tests

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| <u>County</u>      | <u>Agent</u>                | <u>Producer</u>         |
|--------------------|-----------------------------|-------------------------|
| Dyer               | Tim Campbell                | Jay Johnson             |
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| Gibson (Milan REC) | Dr. Angela Thompson McClure | Dr. Blake Brown         |

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## 2008 PERFORMANCE OF GRAIN SORGHUM HYBRIDS IN TENNESSEE RESEARCH AND EDUCATION CENTERS & COUNTY STANDARD TESTS

### Experimental Procedures:

The grain sorghum variety trial was conducted in each of the physiographic regions of the state. The trial was conducted at the East Tennessee (Knoxville); Middle Tennessee (Spring Hill); Highland Rim (Springfield); and Milan Research and Education Centers (REC). Because of random thin stands in some plots at Knoxville for the May planting, a second planting was made in June. Near harvest, bird damage was significant in some plots of the May planting at Knoxville. In cases of poor stands or severe bird damage at harvest, those plots were discarded and treated as missing values in the data analyses. The trial contained 14 hybrids at each location. The tests were fertilized with 90 pounds of nitrogen per acre. A portion of the nitrogen was applied prior to seeding and the remainder was applied as a side-dress. The plot size was two rows, 30 feet in length with 30 inch row spacing. Plots were replicated three times at each location in a randomized complete block design. Plots were seeded at the rate of approximately 87,600 seed per acre (approx. 7 lbs/a). Table 1 contains the test location information on planting and harvest dates and soil types. Tables 2 and 3 contain the **Research and Education Center Test** data for 2008. Tables 4 and 5 contain the two-year data, Tables 6 and 7 contain the three-year data. The **County Standard Test** data on nine hybrids from three counties are reported in Table 8. Table 9 contains the data on the grain sorghum hybrids that were common in the County Standard and REC tests. Table 10 contains the phenotypic trait data for the grain sorghum hybrids tested in 2008 and the contact information for sorghum seed companies is listed in Table 11.

### Interpretation of Data:

The tables on the following pages have been prepared with the entries listed in order of performance, the highest-yielding entry being listed first. **All yields presented have been adjusted to 14% moisture.** At the bottom of the tables, **LSD** values stand for **Least Significant Difference**. The mean yields of any two varieties being compared must differ by at least the amount shown in order to be considered different in yielding ability at the 5% level of probability of significance. For example, given that the LSD for a test is 850 lbs/a and the mean yield of Hybrid A was 4200 lbs/a and the mean yield of Hybrid B was 5000 lbs/a, then the two hybrids are not statistically different in yield because the difference of 800 lbs/a is less than the minimum of 850 lbs/a required for them to be significant. Similarly, if the average yield of Hybrid C was 5900 lbs/a then it is significantly higher yielding than both Hybrid B and Hybrid A, because the difference between B and C (900 lbs) and the difference between A and C (1700 lbs) exceeds the LSD value of 850 lbs.

Also, the **coefficient of variation (C.V.)** values are shown at the bottom of each table. This value is a measure of the error variability found within each experiment. It is the percentage that the square root of error mean square is of the overall test mean yield at that location. For example, a C.V. of 10% indicates that the size of the error variation is about 10% of the size of the test mean. Similarly, a C.V. of 30% indicates that the size of the error variation is nearly one-third as large as the test mean. A goal in conducting each yield test is to keep the C.V. as low as possible, preferably below 20%.

**Growing Season:** The 2008 growing season was characterized by hot, dry conditions overall but somewhat improved compared to last year's record drought. Daytime temperatures were high (several 100+ F days) during flowering and seed fill periods at some locations. Widespread and scattered rainfall from remnants of Tropical Storm Fay in late August and Hurricane Ike in late September were beneficial to later plantings. The late rainfall gave way to dry weather during October allowing producers to finish harvest in a timely manner. Tennessee producers planted 26,000 acres of grain sorghum this year, an increase of 4,000 acres from planting in 2007.

**Table 1. Location information from Research and Education Centers where the grain sorghum hybrid tests were conducted in 2008.**

| <b>Research &amp; Education Center</b> | <b>Location</b> | <b>Planting Date</b> | <b>Harvest Date</b> | <b>Seeding Rate</b> | <b>Soil Type</b>          |
|--|-----------------|----------------------|---------------------|---------------------|---------------------------|
| East Tennessee                         | Knoxville       | May 21, 2008         | September 29, 2008  | 87,600              | Sequatchie Silt Loam      |
| East Tennessee (late planted)          | Knoxville       | June 17, 2008        | November 6, 2008    | 87,600              | Stasser Silt Loam         |
| Middle Tennessee                       | Spring Hill     | May 20, 2008         | October 6, 2008     | 87,600              | Maury Silt Loam           |
| Highland Rim                           | Springfield     | July 9, 2008         | November 19, 2008   | 87,600              | Sango Silt Loam           |
| Milan                                  | Milan           | May 21, 2008         | September 25, 2008  | 87,600              | Loring, Grenada Silt Loam |

**Table 2. Mean yields of 14 grain sorghum hybrids evaluated in five environments in Tennessee during 2008.**

| Brand                    | Hybrid   | Avg. Yield†          | Avg. Yield†          | (5/21 planted) | (6/17 planted) | Spring      | Springfield | Milan       |
|--------------------------|----------|----------------------|----------------------|----------------|----------------|-------------|-------------|-------------|
|                          |          | ± Std. Err.<br>(n=5) | ± Std. Err.<br>(n=5) | Knoxville      | Knoxville      | Hill        |             |             |
|                          |          | bu/a                 | ----- lbs/a-----     |                |                |             |             |             |
| Pioneer                  | 84G62    | 106 ± 4              | 5815 ± 222           | 8431           | 5184           | 4416        | 4758        | 6285        |
| Dyna-Gro                 | 780B     | 104 ± 4              | 5737 ± 196           | 9821           | 4266           | 3727        | 4828        | 6046        |
| FFR                      | x93-57   | 101 ± 4              | 5537 ± 195           | 9252           | 4414           | 3119        | 4863        | 6039        |
| Asgrow                   | A571     | 101 ± 3              | 5528 ± 185           | 8421           | 4962           | 3921        | 4792        | 5541        |
| Dekalb                   | DKS53-67 | 100 ± 3              | 5488 ± 185           | 8065           | 4947           | 3528        | 4218        | 6682        |
| Dyna-Gro                 | 751B     | 99 ± 4               | 5449 ± 222           | 8862           | 4432           | 2988        | 4980        | 5985        |
| DeKalb                   | DKS54-00 | 98 ± 4               | 5415 ± 196           | 8121           | 4812           | 3456        | 4168        | 6519        |
| DeKalb                   | DKS44-20 | 98 ± 3               | 5378 ± 185           | 8053           | 4772           | 3421        | 4292        | 6349        |
| Dyna-Gro                 | 772B     | 97 ± 4               | 5350 ± 196           | 8411           | 5245           | 3184        | 3967        | 5945        |
| FFR                      | x93-50   | 97 ± 3               | 5332 ± 185           | 7713           | 4812           | 3527        | 5136        | 5471        |
| DeKalb                   | DKS54-03 | 93 ± 3               | 5121 ± 185           | 7829           | 5231           | 3192        | 3345        | 6009        |
| DeKalb                   | DKS37-07 | 91 ± 3               | 5009 ± 185           | 6901           | 4463           | 2842        | 4723        | 6117        |
| Dyna-Gro                 | 778B     | 89 ± 4               | 4907 ± 205           | 8035           | 3224           | 2960 ‡      | 3895        | 6419        |
| FFR                      | x93-55   | 89 ± 4               | 4882 ± 196           | 7496           | 4188           | 3054        | 4133        | 5540        |
| <b>Avg. (lbs/a)</b>      |          | <b>97</b>            | <b>5354</b>          | <b>8244</b>    | <b>4640</b>    | <b>3413</b> | <b>4436</b> | <b>6068</b> |
| <b>L.S.D..05 (lbs/a)</b> |          | <b>10</b>            | <b>534</b>           | <b>2385</b>    | <b>901</b>     | <b>1366</b> | <b>903</b>  | <b>1013</b> |
| <b>C.V. (%)</b>          |          | <b>13.8</b>          | <b>13.8</b>          | <b>13.8</b>    | <b>11.6</b>    | <b>24.1</b> | <b>12.1</b> | <b>9.8</b>  |

† All yields adjusted to 14%; lbs / ac ÷ 55 = bushels per acre

‡ Due to extensive bird damage on this entry, missing plot value was calculated at this location.

**Table 3. Overall mean yields and agronomic characteristics of 14 grain sorghum hybrids evaluated in five environments in Tennessee during 2008.**

| <b>Brand</b>   | <b>Hybrid</b> | <b>Avg. Yield<br/>± Std. Err.<br/>(n=5)</b> | <b>Moisture<br/>at Harvest<br/>(n=5)</b> | <b>Test<br/>Weight<br/>(n=2)</b> | <b>Pollen<br/>Shed<br/>(n=1)</b> | <b>Head<br/>Blast<sup>†</sup><br/>(n=2)</b> | <b>Height<br/>(n=5)</b> | <b>Lodging<sup>‡</sup><br/>(n=4)</b> | <b>Bird<br/>Damage<sup>§</sup><br/>(n=4)</b> | <b>Head<br/>Type<sup>¶</sup><br/>(n=1)</b> |
|----------------|---------------|---|--|----------------------------------|----------------------------------|---|-------------------------|--------------------------------------|--|--|
|                |               | bu/a  | %  | lbs/bu                           | DAP                              | score                                       | in.                     | score                                | score  | score                                      |
| Pioneer        | 84G62         | 106 ± 4                                     | 15.9                                     | 59.7                             | 70                               | 1.0   | 50                      | 1.0                                  | 2.2  | 2.2  |
| Dyna-Gro       | 780B          | 104 ± 4                                     | 16.5                                     | 60.1                             | 73                               | 1.0   | 56                      | 1.0                                  | 2.1  | 4.5  |
| FFR            | x93-57        | 101 ± 4                                     | 16.8                                     | 58.3                             | 71                               | 1.0   | 56                      | 1.0                                  | 2.0  | 2.3  |
| Asgrow         | A571          | 101 ± 3                                     | 15.9                                     | 57.7                             | 70                               | 1.0   | 52                      | 1.0                                  | 1.9  | 3.5  |
| Dekalb         | DKS53-67      | 100 ± 3                                     | 16.2                                     | 60.5                             | 70                               | 1.0   | 52                      | 1.0                                  | 2.1  | 3.8  |
| Dyna-Gro       | 751B          | 99 ± 4                                      | 15.9                                     | 59.5                             | 69                               | 1.0   | 53                      | 1.0                                  | 1.9  | 2.7  |
| DeKalb         | DKS54-00      | 98 ± 4                                      | 16.2                                     | 58.4                             | 71                               | 1.0   | 55                      | 1.0                                  | 2.1  | 3.0  |
| DeKalb         | DKS44-20      | 98 ± 3                                      | 15.7                                     | 59.7                             | 67                               | 1.0   | 52                      | 1.0                                  | 2.1  | 3.7  |
| Dyna-Gro       | 772B          | 97 ± 4                                      | 16.0                                     | 59.1                             | 70                               | 1.0   | 52                      | 1.0                                  | 2.3  | 2.2  |
| FFR            | x93-50        | 97 ± 3                                      | 17.4                                     | 57.8                             | 70                               | 1.0   | 53                      | 1.0                                  | 2.1  | 2.2  |
| DeKalb         | DKS54-03      | 93 ± 3                                      | 16.0                                     | 59.0                             | 72                               | 1.0   | 54                      | 1.0                                  | 1.9  | 2.5  |
| DeKalb         | DKS37-07      | 91 ± 3                                      | 15.1                                     | 60.0                             | 66                               | 1.0   | 51                      | 1.0                                  | 2.1  | 1.8  |
| Dyna-Gro       | 778B          | 89 ± 4                                      | 20.0                                     | 58.0                             | 75                               | 1.0   | 59                      | 1.0                                  | 2.6  | 2.8  |
| FFR            | x93-55        | 89 ± 4                                      | 16.7                                     | 58.8                             | 70                               | 1.0   | 57                      | 1.0                                  | 2.2  | 1.5  |
| <b>Average</b> |               | <b>97</b>                                   | <b>16.5</b>                              | <b>59.0</b>                      | <b>70</b>                        | <b>1.0</b>                                  | <b>54</b>               | <b>1.0</b>                           | <b>2.1</b>                                   | <b>2.8</b>                                 |

Bushel weight of No. 2 sorghum equals 55 lbs.

DAP = days after planting

<sup>†</sup> Head blast = 1 to 5 scale; where 1 = 95+% of florets on the head are filled with grain and no mold; 5 = 95+% of florets unfilled grain or moldy or both.

<sup>‡</sup> Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at an angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

<sup>§</sup> Bird damage = 1 to 5 scale; where 1 = no bird feeding; 5 = 95+% of grain removed by birds.

<sup>¶</sup> Head Type - 1 to 5 scale; where 1 = compact head; 5 = open head.

**Table 4. Mean yields of eight grain sorghum hybrids evaluated in three environments for two years (2007-2008) in Tennessee.**

| Brand                    | Hybrid   | Avg. Yield†          | Avg. Yield†          | Knoxville   | Springfield | Milan       |
|--------------------------|----------|----------------------|----------------------|-------------|-------------|-------------|
|                          |          | ± Std. Err.<br>(n=6) | ± Std. Err.<br>(n=6) |             |             |             |
|                          |          | bu/a                 | -----                | lbs/a-----  |             |             |
| Dekalb                   | DKS53-67 | 106 ± 3              | 5826 ± 185           | 7010        | 3916        | 6551        |
| Pioneer                  | 84G62    | 106 ± 4              | 5812 ± 216           | 7315        | 3976        | 6146        |
| Dyna-Gro                 | 780B     | 104 ± 4              | 5713 ± 193           | 7785        | 3406        | 5948        |
| Dyna-Gro                 | 751B     | 102 ± 4              | 5594 ± 223           | 7024        | 3420        | 6339        |
| Asgrow                   | A571     | 101 ± 3              | 5529 ± 185           | 7089        | 3778        | 5720        |
| DeKalb                   | DKS54-00 | 100 ± 4              | 5517 ± 193           | 6725        | 3372        | 6453        |
| Dyna-Gro                 | 772B     | 99 ± 4               | 5433 ± 193           | 7494        | 3492        | 5314        |
| DeKalb                   | DKS37-07 | 97 ± 3               | 5347 ± 185           | 6389        | 3799        | 5852        |
| <b>Avg. (lbs/a)</b>      |          | <b>102</b>           | <b>5596</b>          | <b>7104</b> | <b>3645</b> | <b>6040</b> |
| <b>L.S.D..05 (lbs/a)</b> |          | <b>12</b>            | <b>669</b>           | <b>1689</b> | <b>644</b>  | <b>1159</b> |
| <b>C.V. (%)</b>          |          | <b>14.4</b>          | <b>14.4</b>          | <b>15.6</b> | <b>12.1</b> | <b>12.9</b> |

† All yields adjusted to 14%; lbs / ac ÷ 55 = bushels per acre

**Table 5. Overall mean yields and agronomic characteristics of eight grain sorghum hybrids evaluated in three environments for two years (2007-2008) in Tennessee.**

| Brand          | Hybrid   | Avg. Yield           | Moisture            | Test            | Head            | Height    | Lodging‡   | Bird       | Headtype¶  |
|----------------|----------|----------------------|---------------------|-----------------|-----------------|-----------|------------|------------|------------|
|                |          | ± Std. Err.<br>(n=6) | at Harvest<br>(n=6) | Weight<br>(n=5) | Blast†<br>(n=1) |           |            |            |            |
|                |          | bu/a                 | %                   | lbs/bu          | score           | in.       | score      | score      | score      |
| Dekalb         | DKS53-67 | 106 ± 3              | 15.1                | 58.8            | 1.5             | 51        | 1.0        | 1.8        | 4.4        |
| Pioneer        | 84G62    | 106 ± 4              | 14.8                | 58.0            | 1.7             | 48        | 1.0        | 1.9        | 1.6        |
| Dyna-Gro       | 780B     | 104 ± 4              | 15.2                | 58.9            | 1.7             | 53        | 1.2        | 1.9        | 4.7        |
| Dyna-Gro       | 751B     | 102 ± 4              | 14.9                | 58.2            | 1.7             | 50        | 1.2        | 1.7        | 2.4        |
| Asgrow         | A571     | 101 ± 3              | 14.8                | 56.1            | 1.7             | 50        | 1.0        | 1.6        | 3.9        |
| DeKalb         | DKS54-00 | 100 ± 4              | 15.0                | 56.2            | 1.7             | 53        | 1.0        | 2.0        | 2.6        |
| Dyna-Gro       | 772B     | 99 ± 4               | 14.7                | 57.4            | 1.8             | 50        | 1.0        | 2.1        | 2.6        |
| DeKalb         | DKS37-07 | 97 ± 3               | 14.2                | 58.4            | 1.5             | 50        | 1.0        | 1.9        | 3.1        |
| <b>Average</b> |          | <b>102</b>           | <b>14.8</b>         | <b>57.8</b>     | <b>1.6</b>      | <b>51</b> | <b>1.1</b> | <b>1.9</b> | <b>3.2</b> |

Bushel weight of No. 2 sorghum equals 55 lbs.

† Head blast = 1 to 5 scale; where 1 = 95+% of florets on the head are filled with grain and no mold; 5 = 95+% of florets unfilled with grain or moldy or both.

‡ Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at an angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

§ Bird damage = 1 to 5 scale; where 1 = no bird feeding; 5 = 95+% of grain removed by birds.

¶ Head type = 1 to 5 scale; where 1 = compact head; 5 = open head.

**Table 6. Mean yields of six grain sorghum hybrids evaluated in three environments for three years (2006-2008) in Tennessee.**

| Brand                    | Hybrid   | Avg. Yield†          | Avg. Yield†          | Knoxville   | Springfield | Milan       |
|--------------------------|----------|----------------------|----------------------|-------------|-------------|-------------|
|                          |          | ± Std. Err.<br>(n=9) | ± Std. Err.<br>(n=9) |             |             |             |
|                          |          | bu/ac                | ----- lbs/a-----     |             |             |             |
| Pioneer                  | 84G62    | 106 ± 3              | 5851 ± 152           | 7991        | 3545        | 6017        |
| Dyna-Gro                 | 780B     | 104 ± 3              | 5699 ± 141           | 8029        | 3276        | 5792        |
| Dyna-Gro                 | 751B     | 100 ± 3              | 5518 ± 156           | 7482        | 3193        | 5879        |
| DeKalb                   | DKS37-07 | 100 ± 2              | 5502 ± 137           | 6814        | 3842        | 5850        |
| DeKalb                   | DKS54-00 | 100 ± 3              | 5485 ± 141           | 7402        | 2922        | 6132        |
| Asgrow                   | A571     | 99 ± 2               | 5461 ± 137           | 7445        | 3438        | 5501        |
| <b>Avg. (lbs/a)</b>      |          | <b>102</b>           | <b>5586</b>          | <b>7527</b> | <b>3369</b> | <b>5862</b> |
| <b>L.S.D..05 (lbs/a)</b> |          | <b>11</b>            | <b>610</b>           | <b>1349</b> | <b>854</b>  | <b>1011</b> |
| <b>C.V. (%)</b>          |          | <b>13.0</b>          | <b>13.0</b>          | <b>11.8</b> | <b>16.9</b> | <b>11.8</b> |

† All yields adjusted to 14%; lbs / ac ÷ 55 = bushels per acre

**Table 7. Overall mean yields and agronomic characteristics of six grain sorghum hybrids evaluated in three environments for three years (2006-2008) in Tennessee.**

| Brand          | Hybrid   | Avg. Yield           | Moisture            | Test            | Head            | Height    | Lodging‡   | Bird             | Headtype¶  |
|----------------|----------|----------------------|---------------------|-----------------|-----------------|-----------|------------|------------------|------------|
|                |          | ± Std. Err.<br>(n=9) | at Harvest<br>(n=9) | Weight<br>(n=8) | Blast†<br>(n=1) |           |            | Damage§<br>(n=5) |            |
|                |          | bu/a                 | %                   | lbs/bu          | score           | in.       | score      | score            | score      |
| Pioneer        | 84G62    | 106 ± 3              | 14.7                | 57.9            | 1.7             | 49        | 1.0        | 1.9              | 2.0        |
| Dyna-Gro       | 780B     | 104 ± 3              | 14.9                | 58.5            | 1.7             | 54        | 1.1        | 1.8              | 3.7        |
| Dyna-Gro       | 751B     | 100 ± 3              | 14.6                | 57.4            | 1.7             | 51        | 1.1        | 1.7              | 2.7        |
| DeKalb         | DKS37-07 | 100 ± 2              | 14.1                | 58.0            | 1.5             | 50        | 1.0        | 1.8              | 2.5        |
| DeKalb         | DKS54-00 | 100 ± 3              | 14.7                | 55.8            | 1.7             | 53        | 1.0        | 1.9              | 3.0        |
| Asgrow         | A571     | 99 ± 2               | 14.6                | 55.9            | 1.7             | 50        | 1.0        | 1.6              | 2.9        |
| <b>Average</b> |          | <b>102</b>           | <b>14.6</b>         | <b>57.2</b>     | <b>1.6</b>      | <b>51</b> | <b>1.0</b> | <b>1.8</b>       | <b>2.8</b> |

Bushel weight of No. 2 sorghum equals 55 lbs.

† Head blast = 1 to 5 scale; where 1 = 95+% of florets on the head are filled with grain and no mold; 5 = 95+% of florets unfilled with grain or moldy or both.

‡ Lodging = 1 to 5 scale; where 1 = 95% of plants erect; 2.5 = ~50% of plants leaning at an angle ≥ 45°; 5 = 95+% of plants leaning at an angle ≥ 45°.

§ Bird damage = 1 to 5 scale; where 1 = no bird feeding; 5 = 95+% of grain removed by birds.

¶ Head type = 1 to 5 scale; where 1 = compact head; 5 = open head.



**Table 8. Yields of nine grain sorghum hybrids in three County Standard Tests in Tennessee during 2008.†‡**

| MS             | Hybrid             | Avg.         | Avg.        | Moisture    | Test        | Dyer       | Obion      | Milan REC  |
|----------------|--------------------|--------------|-------------|-------------|-------------|------------|------------|------------|
|                |                    | Yld          | Yld         |             | Weight      |            |            | Gibson     |
|                |                    | bu/a         | lbs/a       | %           | lbs/bu      | 5/2 §      | 6/9        | 5/29       |
| A              | *****Pioneer 84G62 | 140.6        | 7733        | 13.5        | 60.0        | 142        | 146        | 134        |
| AB             | *Dekalb DKS53-67   | 137.7        | 7574        | 14.0        | 59.0        | 149        | 138        | 126        |
| ABC            | Dyna-Gro 751B      | 132.3        | 7277        | 13.8        | 58.5        | 143        | 136        | 118        |
| ABC            | FFR 322            | 131.7        | 7244        | 13.9        | 60.0        | 131        | 143        | 121        |
| ABC            | Dyna-Gro 772B      | 131.1        | 7211        | 13.8        | 59.0        | 135        | 135        | 123        |
| ABC            | Dekalb DKS54-03    | 130.3        | 7167        | 13.7        | 57.5        | 127        | 134        | 130        |
| BC             | ****Pioneer 83G66  | 129.3        | 7112        | 14.4        | 59.5        | 137        | 140        | 110        |
| C              | FFR 318            | 125.6        | 6908        | 13.6        | 59.5        | 134        | 124        | 119        |
| C              | FFR 93-55          | 122.0        | 6710        | 13.8        | 59.5        | 132        | 127        | 107        |
| <b>Average</b> |                    | <b>131.2</b> | <b>7215</b> | <b>13.8</b> | <b>59.2</b> | <b>137</b> | <b>136</b> | <b>121</b> |

Pounds per acre ÷ 55 = bushels per acre

MS = Hybrids that have any MS letter in common are not statistically different in yield at the 5% level of probability.

†Yields have been adjusted to 14% moisture. Each hybrid was evaluated in a large strip – plot at each location, thus each county test was considered as one replication of the test in calculating the average yield and in conducting the statistical analysis to determine significant differences (MS).

Test weight = average of two locations.

‡Data provided by Robert C. Williams, Ext. Area Specialist, Grain Crops, and extension agents in counties shown above.

§ Planting date.

\*Hybrids denoted with an asterisk (\*), (\*\*\*\*), or (\*\*\*\*\*) were in the top performing group in 2007, 2007-2004, or 2007-2001 respectively.

**Table 9. Overall average yields, moistures, and test weights of six grain sorghum hybrids evaluated in county standard tests and Research and Education Center tests in Tennessee during 2008.†**

| Brand                  | Hybrid   | County Standard Tests |                   |                      | Experiment Station Tests |                   |                      |
|------------------------|----------|-----------------------|-------------------|----------------------|--------------------------|-------------------|----------------------|
|                        |          | Avg. Yield<br>(n=3)   | Moisture<br>(n=3) | Test Weight<br>(n=3) | Avg. Yield<br>(n=5)      | Moisture<br>(n=5) | Test Weight<br>(n=5) |
|                        |          | bu/a                  | %                 | lbs/bu               | bu/a                     | %                 | lbs/bu               |
| Pioneer                | 84G62    | 141                   | 13.5              | 60.0                 | 106                      | 15.9              | 59.7                 |
| Dekalb                 | DKS53-67 | 138                   | 14.0              | 59.0                 | 100                      | 16.2              | 60.5                 |
| Dyna-Gro               | 751B     | 132                   | 13.8              | 58.5                 | 99                       | 15.9              | 59.5                 |
| Dyna-Gro               | 772B     | 131                   | 13.8              | 59.0                 | 97                       | 16.0              | 59.1                 |
| DeKalb                 | DKS54-03 | 130                   | 13.7              | 57.5                 | 93                       | 16.0              | 59.0                 |
| FFR                    | x93-55   | 122                   | 13.8              | 59.5                 | 89                       | 16.7              | 58.8                 |
| <b>Average (lbs/a)</b> |          | <b>132</b>            | <b>13.8</b>       | <b>58.9</b>          | <b>97</b>                | <b>16.1</b>       | <b>59.4</b>          |

† All yields adjusted to 14%, bushel weight of No. 2 sorghum equals 55 lbs.

**Table 10. Characteristics of grain sorghum hybrids evaluated in yield tests in Tennessee during 2008 provided by participating seed companies.**

| Brand    | Hybrid   | Grain Color | Maturity  | Head Type    | Green Bug Resistance | Released or Experimental | Comments   |
|----------|----------|-------------|-----------|--------------|----------------------|--------------------------|--|
| Asgrow   | A571     | Bronze      | Med-Late  | Open         | ---                  | R                        | ---  |
| DeKalb   | DKS37-07 | Bronze      | Med-Early | ---          | ---                  | R                        | ---  |
| DeKalb   | DKS44-20 | Bronze      | Med       | ---          | ---                  | R                        | ---  |
| Dekalb   | DKS53-67 | Bronze      | Med-Late  | ---          | ---                  | R                        | ---  |
| DeKalb   | DKS54-00 | Bronze      | 110       | Semi-Compact | C,E,I                | R                        | For high yield environments, residue proven                                |
| DeKalb   | DKS54-03 | Bronze      | Med-Late  | ---          | ---                  | R                        | ---  |
| Dyna-Gro | 751B     | Bronze      | 105       | Semi-Compact | ---                  | R                        | Performance on all soil types; consistent high yields                      |
| Dyna-Gro | 772B     | Bronze      | 118       | ---          | ---                  | R                        | Excellent stalk strength and stress tolerance                              |
| Dyna-Gro | 778B     | Bronze      | 125       | ---          | ---                  | R                        | v. good stress, drought, mod resist charcoal rot, good on clay and dryland |
| Dyna-Gro | 780B     | Bronze      | 111       | Compact      | ---                  | R                        | Very good standability; adapted to dryland                                 |
| FFR      | x93-50   | Bronze      | ---       | ---          | ---                  | E                        | ---  |
| FFR      | x93-55   | Bronze      | ---       | ---          | ---                  | E                        | ---  |
| FFR      | x93-57   | Bronze      | ---       | ---          | ---                  | E                        | ---  |
| Pioneer  | 84G62    | Bronze      | 125       | Open         | ---                  | R                        | ---  |

**Table 11. Contact information for grain sorghum seed companies participating in yield tests in Tennessee during 2008.**

| Company                             | Contact  | Phone  | Email  | Web site   | Address   |
|-------------------------------------|--|--|--|--|---|
| Monsanto (Asgrow, Dekalb)           |  | 800-335-2676   |  | <a href="http://www.asgrow.com">www.asgrow.com</a>           |   |
| Tennessee Farmers Coop (FFR)        | Jim Payne<br>Andy Rowsey<br>Curtis Yates<br>Bobby Hooper<br>Chris Morris | 901-652-0903<br>731-225-2032<br>865-567-8174<br>615-390-7587<br>615-218-7963 | <a href="mailto:jpayne@ourcoop.com">jpayne@ourcoop.com</a>                 | <a href="http://www.ourcoop.com">www.ourcoop.com</a>         | West TN<br><br><br><br>East & Middle TN                 |
| Crop Production Services (Dyna-Gro) | Brandon Sheridan   | 901-277-3638   | <a href="mailto:brandon.sheridan@uap.com">brandon.sheridan@uap.com</a>     | <a href="http://www.dynagroseed.com">www.dynagroseed.com</a> | 57 Germantown Ct Suite 200<br>Cordova, TN 38018         |
| Pioneer Hi-Bred Int.                | Michael Hughes   | 800-331-2475   | <a href="mailto:michael.hughes@pioneer.com">michael.hughes@pioneer.com</a> | <a href="http://www.pioneer.com">www.pioneer.com</a>         | 700 Boulevard South, Suite 302,<br>Huntsville, AL 35802 |