

Grain Sorghum

2007 Missouri Crop Performance



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Missouri 2007 Grain Sorghum Performance Tests

This report is a contribution of the Division of Plant Sciences, University of Missouri College of Agriculture, Food and Natural Resources. The work was supported by fees paid by the companies submitting hybrids for evaluation. The University of Missouri began its performance testing program for grain sorghum hybrids in 1958. The number of commercial entries in the program increased from 40 in 1958 to 134 in 1982. The number has declined during recent years to 32 hybrids in 2007. To select a commercial hybrid intelligently, producers need a reliable, unbiased, up-to-date source of information that will permit valid comparisons among available hybrids. The objective of the University of Missouri's performance testing program is to provide this information. The tests are conducted under as uniform conditions as possible. Small plots are used to reduce the chance of soil and climatic variations occurring from one plot to another. Results obtained should aid the individual grower in judging the relative merits of many of the commercial grain sorghum hybrids available in Missouri today.

Comparing Hybrids

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

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

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

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

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

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Experimental Procedures

Entries: All producers of hybrid seed were eligible to enter hybrids in the 2007 evaluation tests. Participation was voluntary. The testing coordinator exercised no control over which hybrids or how many hybrids were entered. However, to help finance the evaluation program, a fee of \$100 per location was charged for each hybrid entered by the seed producer.

Plot Management: The test plots were planted and harvested with equipment designed for small-plot work. Row spacing for grain sorghum tests in the Central/West Region was 15 inches. Row spacing for grain sorghum tests in the Southeast Region was 30 inches. Seeding rate for the 15 and 30 inch row spacing was 122,000 seeds/acre. Fertilizer was applied at each site at the discretion of the farmer. Herbicides were used for weed control and plots were hand weeded as necessary. Management details varied from location to location and are specified in the regional crop management summaries.

Data Recorded: Agronomic characteristics were evaluated at harvest. Lodging was taken immediately before harvest. Interpretation of the scale is as follows: 1 = all plants erect, 3 = all plants leaning moderately or 20% to 50% down, 5 = all plants down. Yield is measured in bushels (56 pounds) per acre at a moisture content of 14.0 percent. An electronic moisture tester is used for all moisture readings.

Accessibility of Data: The results of the 2007 crop performance tests are also available online at: agebb.missouri.edu/cropperf/vartest . If you need assistance in accessing the system; call 573-882-4827 for help.

Field Plot Design: Statistical designs used to analyze the field data included randomized lattice with 3 replications and randomized complete block with four replications, depending on the size of the test. Individual plots were four rows wide. Row length was 25 feet for both 15 and 30 inch row spacing. All four rows of each plot were harvested for the 15 inch row spacing test and only the center two rows of each plot were harvested for the 30 inch row spacing to determine yield.

Locations

On the basis of geographical characteristics, the state is divided into regions. Grain sorghum hybrid evaluation tests are located in the Central/West Region and Southeast Region of the state. In 2007, the locations for these tests were as follows:

Central/West

1. Beetsma farm, Mooresville (Livingston Co.)
2. Bill Cason farm, Macon (Macon Co.)
3. Bradford Research & Ext. Center, Columbia (Boone Co.)
4. Kenny Tevis farm, Hughesville (Pettis Co.)
5. Mike Honey farm, Webb City (Jasper Co.)

Southeast

6. Glenn farm, Bertrand (Mississippi Co.)
7. Delta Research Center (Clay and Loam), Portageville (Pemiscot Co.)



Central/West Crop Management Summary

There are five locations in the Central/West Region for the Grain Sorghum Test. They are located in counties where a significant number of acres of grain sorghum are grown according to the Missouri Agricultural Statistics Service. Cultural practices vary slightly between locations, but tend to reflect those followed by farmers in the area.

The Webb City location was not planted this spring because of non-stop rain that continued well into July. Jasper County recorded 30.4" rainfall for the months of May – September, which is 7.8" above normal for the period. Yields at the other four locations were average or below average, partly because of poor stands and increased lodging.

Climatological information for the growing season (May 1 – September 30) for the Central/West Region is summarized below and cultural practices for each site are listed in Table 1.

Average temperature = 73.7 degrees, 1.7 degrees above normal

Average precipitation = 19.6", 1.5" below normal

Table 1. Central/West Region Crop Management Summary

Location	Planting	Harvest					Herbicide	
	date	date	N	P ₂ O ₅	K ₂ O	Tillage	Pre	Post
<i>Standard Grain Sorghum Tests</i>								
Mooreville	06-12	10-25	120	20	0	Conventional	Bicep II Magnum	None
Macon	05-25	10-05	120	60	90	Minimum	Dual II Magnum, Atrazine	None
Columbia	06-04	09-28	160	46	60	No-Till	Dual II Magnum, Atrazine, Roundup WeatherMax	Buctril
Hughesville	06-05	10-24	140	70	45	Conventional	Guardsman	None

TABLE 2. **Standard Grain Sorghum Test**

Central/West Region: Mooresville, MO (Livingston County)

Soil Type: Grundy Silt Loam Soil Test: pH=6.0, OM=2.6%, P=78, K=520

Rainfall: May=6.3, June=2.6, July=2.4, Aug.=6.0, Sept.=2.4 Total=19.7 in.

Brand-Variety	Seed Treatment ⁺	2007			Yield		2 Yr. Mean
		Moisture (%)	Plant Height (in)	Lodging	2007 -----bu/acre-----	2006	
Pioneer 85Y40	2, 4, 5, 7	11.2	47	1	139.8**	121.7*	130.8
Dyna-Gro GX06170	2, 4	12.0	56	1	139.8**	--	--
Pioneer 84G62	2, 4, 5, 7	11.3	46	1	134.6*	126.2*	130.4
NC+ 7R34	2, 6	12.2	52	1	134.4*	105.2	119.8
NC+ 7B51	2, 6	10.4	45	1	131.9*	126.9**	129.4
Dyna-Gro 772B	6	10.8	45	1	131.3*	--	--
DEKALB DKS53-67	3, 6	11.6	47	1	130.8*	--	--
DEKALB DKS54-00	3, 6	10.8	52	1	128.3	126.8*	127.6
Dyna-Gro 751B	2, 4	11.6	46	1	128.1	--	--
Garst 5464	4	10.2	49	1	128.1	--	--
Dyna-Gro GX07763	6	11.6	45	1	126.2	--	--
DEKALB DKS36-16	3, 6	10.6	40	1	125.2	100.8	113.0
Dyna-Gro GX06750	6	10.8	48	1	122.5	--	--
Dyna-Gro GX06360	6	11.1	44	1	121.4	--	--
DEKALB DKS42-20	3, 6	11.3	43	1	118.1	111.4	114.8
Dyna-Gro 764B	6	11.0	42	1	116.3	--	--
DEKALB DKS37-07	3, 6	11.9	45	1	112.0	105.1	108.6
DEKALB DK44	3, 6	12.4	44	1	109.6	101.2	105.4
TEST AVERAGE		11.3	46	1	126.6	113.7	120.2
L.S.D. AT .10		NS			9.0	11.1	
C.V. %		9.5			6.0	8.2	

-- Data not available.

** Highest yielding hybrid in the test.

NS Not Significant

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

+ Seed Treatments: 1= Allegiance (Metalaxyl); 2= Apron XL (Mefenoxam); 3= Captan; 4=Concep (Fluxofenim); 5= Cruiser (Thiamethoxam); 6= Gaucho (Imidacloprid); 7= Maxim XL (Fludioxonil)

TABLE 3. **Standard Grain Sorghum Test**

Central/West Region: Macon, MO (Macon County)

Soil Type: Mexico Silt Loam Soil Test: pH=5.8, OM=1.6%, P=38, K=150

Rainfall: May=4.1, June=3.4, July=1.0, Aug.=5.6, Sept.=1.8 Total=15.9 in.

Brand-Variety	Seed Treatment ⁺	2007			Yield		2 Yr. Mean
		Moisture (%)	Plant Height (in)	Lodging	2007 -----bu/acre-----	2006	
DEKALB DKS53-67	3, 6	15.7	58	1	136.8**	--	--
Pioneer 84G62	2, 4, 5, 7	16.1	59	1	134.6*	128.8*	131.7
DEKALB DKS42-20	3, 6	13.4	58	1	128.3*	111.2	119.8
Dyna-Gro GX06750	6	15.4	58	1	128.2*	--	--
NC+ 7R34	2, 6	15.6	63	1	127.2*	113.4	120.3
DEKALB DKS54-00	3, 6	15.2	59	1	126.5*	117.8	122.2
Dyna-Gro GX07763	6	16.2	55	1	126.2*	--	--
Dyna-Gro 751B	2, 4	14.3	58	1	124.8*	--	--
Garst 5464	4	14.6	57	1	124.6*	--	--
Pioneer 85Y40	2, 4, 5, 7	15.7	59	1	123.5*	129.6**	126.6
NC+ 7B51	2, 6	12.6	58	1	119.2	114.9	117.1
Dyna-Gro 772B	6	14.8	57	1	117.8	--	--
DEKALB DKS36-16	3, 6	15.2	52	1	114.7	100.3	107.5
Dyna-Gro GX06170	2, 4	16.4	63	1	113.4	--	--
Dyna-Gro GX06360	6	14.2	54	1	108.1	--	--
DEKALB DK44	3, 6	13.9	54	1	103.8	97.8	100.8
DEKALB DKS37-07	3, 6	15.4	56	1	101.7	111.8	106.8
Dyna-Gro 764B	6	14.3	53	1	89.9	--	--
TEST AVERAGE		14.9	57	1	119.4	110.1	114.8
L.S.D. AT .10		1.1			13.4	10.5	
C.V. %		6.4			9.5	8.0	

-- Data not available.

** Highest yielding hybrid in the test.

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

+ Seed Treatments: 1= Allegiance (Metalaxyl); 2= Apron XL (Mefenoxam); 3= Captan; 4=Concep (Fluxofenim); 5= Cruiser (Thiamethoxam); 6= Gaucho (Imidacloprid); 7= Maxim XL (Fludioxonil)

TABLE 4. **Standard Grain Sorghum Test**

Central/West Region: Columbia, MO (Boone County)

Soil Type: Mexico Silt Loam Soil Test: pH=5.8, OM=2.3%, P=62, K=384

Rainfall: May=3.4, June=3.0, July=2.0, Aug.=1.6, Sept.=1.5 Total=11.5 in.

Brand-Variety	Seed Treatment ⁺	2007			Yield		
		Moisture	Plant Height	Lodging	2007	2006	2 Yr. Mean
		(%)	(in)		-----bu/acre-----		
Pioneer 84G62	2, 4, 5, 7	17.0	61	1	145.4**	127.7**	136.6
NC+ 7R34	2, 6	17.7	70	1	144.6*	127.5*	136.1
DEKALB DKS53-67	3, 6	18.0	64	1	139.1*	--	--
Pioneer 85Y40	2, 4, 5, 7	18.1	64	1	138.4*	119.8*	129.1
Dyna-Gro 772B	6	17.2	62	1	136.6*	--	--
NC+ 7B51	2, 6	17.5	64	1	136.1*	101.6	118.9
DEKALB DKS54-00	3, 6	16.3	66	1	135.6*	124.0*	129.8
Dyna-Gro GX06750	6	17.1	63	1	133.6*	--	--
Dyna-Gro GX06360	6	15.8	58	1	133.6*	--	--
Garst 5464	4	18.1	64	1	133.3*	--	--
DEKALB DKS42-20	3, 6	16.3	65	1	131.0	111.6	121.3
Dyna-Gro GX07763	6	17.6	56	1	128.7	--	--
Dyna-Gro GX06170	2, 4	20.3	66	1	127.5	--	--
DEKALB DKS37-07	3, 6	15.7	63	1	126.6	115.3	121.0
Dyna-Gro 751B	2, 4	16.4	67	1	123.1	--	--
DEKALB DKS36-16	3, 6	16.9	55	1	121.8	108.8	115.3
Dyna-Gro 764B	6	15.6	57	1	119.8	--	--
DEKALB DK44	3, 6	15.6	57	1	116.9	114.0	115.5
TEST AVERAGE		17.1	62	1	131.8	115.9	123.9
L.S.D. AT .10		1.4			12.7	10.0	
C.V. %		6.9			8.1	7.3	

-- Data not available.

** Highest yielding hybrid in the test.

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

+ Seed Treatments: 1= Allegiance (Metalaxyl); 2= Apron XL (Mefenoxam); 3= Captan; 4=Concep (Fluxofenim); 5= Cruiser (Thiamethoxam); 6= Gaucho (Imidacloprid); 7= Maxim XL (Fludioxonil)

TABLE 5. **Standard Grain Sorghum Test**

Central/West Region: Hughesville, MO (Pettis County)

Soil Type: Arispe Silt Loam Soil Test: pH=5.7, OM=2.5%, P=120, K=378

Rainfall: May=7.2, June=7.7, July=1.0, Aug.=1.3, Sept.=2.1 Total=19.3

Brand-Variety	Seed Treatment ⁺	2007			Yield		2 Yr. Mean
		Moisture (%)	Plant Height (in)	Lodging	2007 -----bu/acre-----	2006	
NC+ 7R34	2, 6	14.6	63	1	131.8**	--	--
DEKALB DKS53-67	3, 6	13.2	55	1	112.6	--	--
Dyna-Gro GX06170	2, 4	14.9	62	1	107.8	--	--
DEKALB DK44	3, 6	13.2	55	1	105.8	60.0	82.9
Dyna-Gro GX06750	6	15.0	55	1	103.5	--	--
Dyna-Gro GX07763	6	13.3	54	1	103.3	--	--
DEKALB DKS36-16	3, 6	12.4	51	1	92.2	61.0	76.6
Dyna-Gro GX06360	6	10.9	54	1	80.0	--	--
Dyna-Gro 772B	6	12.9	58	3	75.7	68.9	72.3
DEKALB DKS54-00	3, 6	12.7	60	3	73.2	63.2	68.2
Garst 5464	4	15.2	57	3	65.5	--	--
DEKALB DKS37-07	3, 6	14.2	58	2	64.8	62.6	63.7
Dyna-Gro 764B	6	13.9	54	3	61.1	--	--
NC+ 7B51	2, 6	13.9	54	4	58.4	--	--
DEKALB DKS42-20	3, 6	12.9	58	1	55.6	69.2	62.4
Pioneer 84G62	2, 4, 5, 7	13.5	55	4	45.7	82.0**	63.9
Pioneer 85Y40	2, 4, 5, 7	14.4	49	5	42.5	65.5	54.0
Dyna-Gro 751B	2, 4	15.2	59	2	36.6	62.9	49.8
TEST AVERAGE		13.7	56	2	78.7	67.7	73.2
L.S.D. AT .10		1.7			15.4	10.5	
C.V. %		10.8			16.5	13.0	

-- Data not available.

** Highest yielding hybrid in the test.

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

+ Seed Treatments: 1= Allegiance (Metalaxyl); 2= Apron XL (Mefenoxam); 3= Captan; 4=Concep (Fluxofenim); 5= Cruiser (Thiamethoxam); 6= Gaucho (Imidacloprid); 7= Maxim XL (Fludioxonil)

TABLE 6. Performance of Standard Hybrids evaluated at Four Central/West Missouri locations (Mooresville, Macon, Columbia, Hughesville) during 2007.

Mooresville
Planted: 06-12
Harvested: 10-25
Growing Season Rainfall: 19.7 in.

Macon
Planted: 05-25
Harvested: 10-05
Growing Season Rainfall: 15.9 in.

Columbia
Planted: 06-04
Harvested: 09-28
Growing Season Rainfall: 11.5 in.

Hughesville
Planted: 06-05
Harvested: 10-24
Growing Season Rainfall: 19.3

Brand-Hybrid	Yield (Bu/Acre)				
	Mooresville	Macon	Columbia	Hughesville	Mean
Standard					
NC+ 7R34	134.4*	127.2*	144.6*	131.8**	134.5**
DEKALB DKS53-67	130.8*	136.8**	139.1*	112.6	129.8*
Dyna-Gro GX06170	139.8**	113.4	127.5	107.8	122.1
Dyna-Gro GX06750	122.5	128.2*	133.6*	103.5	122.0
Dyna-Gro GX07763	126.2	126.2*	128.7	103.3	121.1
DEKALB DKS54-00	128.3	126.5*	135.6*	73.2	115.9
Dyna-Gro 772B	131.3*	117.8	136.6*	75.7	115.4
Pioneer 84G62	134.6*	134.6*	145.4**	45.7	115.1
DEKALB DKS36-16	125.2	114.7	121.8	92.2	113.5
Garst 5464	128.1	124.6*	133.3*	65.5	112.9
NC+ 7B51	131.9*	119.2	136.1*	58.4	111.4
Pioneer 85Y40	139.8**	123.5*	138.4*	42.5	111.0
Dyna-Gro GX06360	121.4	108.1	133.6*	80.0	110.8
DEKALB DK44	109.6	103.8	116.9	105.8	109.0
DEKALB DKS42-20	118.1	128.3*	131.0	55.6	108.2
Dyna-Gro 751B	128.1	124.8*	123.1	36.6	103.2
DEKALB DKS37-07	112.0	101.7	126.6	64.8	101.3
Dyna-Gro 764B	116.3	89.9	119.8	61.1	96.8
TEST AVERAGE	126.6	119.4	131.8	78.7	114.1
L.S.D. AT .10	9.0	13.4	12.7	15.4	6.3
C.V. %	6.0	9.5	8.1	16.5	10.0

** Highest yielding hybrid in the test.

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

Note: To view seed treatments for these hybrids refer to the location table or the characteristics chart.

Southeast Region Crop Management Summary

There are three locations in the Southeast Region for the Grain Sorghum Test. They are located in counties where a significant number of acres of grain sorghum are grown according to the Missouri Agricultural Statistics Service. Cultural practices vary slightly between locations, but tend to reflect those followed by farmers in the area.

Rainfall was below normal this year in the Southeast Region and temperatures were slightly above normal. Yields at Bertrand and Portageville Loam were about average for the area, 144.1 bushels/acre and 132.3 bushels/acre respectively. An additional site at Portageville was planted, but due to circumstances beyond our control, yields were too low to include in this report.

Climatological information for the growing season (May 1 – September 30) for the Southeast Region is summarized below and cultural practices for each site are listed in Table 7.

Average temperature = 76.4 degrees, 1.4 degrees above normal

Average precipitation = 15.1", 4.0" below normal

Table 7. Southeast Region Crop Management Summary

	Planting	Harvest					Herbicide	
Location	date	date	N	P ₂ O ₅	K ₂ O	Tillage	Pre	Post
<i>Standard Grain Sorghum Tests</i>								
Bertrand	05-23	09-12	200	0	60	Conventional	Dual II Magnum, Atrazine	2,4-D
Portageville Loam	05-09	08-29	175	30	0	Conventional	Dual II Magnum, Atrazine	2,4-D

TABLE 8. **Standard Grain Sorghum Test**

Southeast Region: Bertrand, MO (Mississippi County)

Soil Type: Sikeston Loam Soil Test: pH=6.4, OM=2.7%, P=62, K=174

Rainfall: May=3.1, June=5.0, July=5.1, Aug.=0.3, Sept.=3.7 Total=17.2 in.

Brand-Variety	Seed Treatment ⁺	2007			Yield		2 Yr. Mean
		Moisture (%)	Plant Height (in)	Lodging	2007 -----bu/acre-----	2006	
Garst 5750	4	14.1	63	1	162.9**	--	--
Pioneer 84G62	2, 4, 5, 7	15.1	57	1	159.7*	115.8*	137.8
DEKALB DKS37-07	3, 6	14.7	58	1	157.9*	--	--
Garst 5464	4	15.1	62	1	154.7*	--	--
Dyna-Go GX07467	2, 4	14.9	68	1	153.7*	--	--
FFR 322	NA	14.7	63	1	151.9*	105.6	128.8
DEKALB DKS53-67	3, 6	16.3	54	1	149.7	--	--
Golden World GWX1445	1, 3, 4, 6	14.7	52	1	148.9	114.1	131.5
DEKALB DK44	3, 6	14.4	54	1	146.3	109.8	128.1
Dyna-Gro GX07064	2, 4	13.8	53	1	146.1	--	--
FFR X358	NA	15.3	60	1	145.5	--	--
Dyna-Gro 772B	6	15.1	58	1	145.1	--	--
Dyna-Gro 754B	2, 4	14.6	60	1	143.6	116.3*	130.0
Pioneer 82G10	2, 4, 5, 7	16.0	63	1	143.4	--	--
Dyna-Gro GX07163	2, 4	15.4	62	1	141.7	--	--
DEKALB DKS36-16	3, 6	14.5	51	1	141.1	--	--
Dyna-Gro GX06170	2, 4	17.5	67	1	140.6	--	--
DEKALB DKS42-20	3, 6	14.5	62	1	140.6	--	--
Golden World GWX1488	1, 3, 4, 6	15.2	60	1	140.4	--	--
Dyna-Gro 751B	2, 4	14.9	63	1	135.3	94.3	114.8
Dyna-Gro 780B	2, 4	15.6	63	1	131.3	87.1	109.2
DEKALB DKS54-00	3, 6	15.0	63	1	131.2	126.6*	128.9
Crow's 590	4	14.4	53	1	131.2	117.4*	124.3
Dyna-Gro 758B	2, 4	15.6	54	1	129.6	103.4	116.5
Gateway GS595W	3, 4	12.1	51	1	129.3	--	--
TEST AVERAGE		14.9	59	1	144.1	110.3	127.2
L.S.D. AT .10		0.0			11.6	17.1	
C.V. %		2.2			5.4	10.7	

-- Data not available.

** Highest yielding hybrid in the test.

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

+ Seed Treatments: 1= Allegiance (Metalaxyl); 2= Apron XL (Mefenoxam); 3= Captan; 4=Concep (Fluxofenim); 5= Cruiser (Thiamethoxam); 6= Gaucho (Imidacloprid); 7= Maxim XL (Fludioxonil)

TABLE 9. **Standard Grain Sorghum Test**

Southeast Region: Portageville Loam, MO (Pemiscot County)

Soil Type: Tiptonville Silt Loam Soil Test: pH=6.0, OM=1.2%, P=84, K=310

Rainfall: May=2.7, June=1.4, July=3.1, Aug.=0.6, Sept.=8.9 Total=16.7 in.

Brand-Variety	Seed Treatment ⁺	2007			Yield		2 Yr. Mean
		Moisture (%)	Plant Height (in)	Lodging	2007 -----bu/acre-----	2006	
Crow's 590	4	12.3	49	1	153.8**	84.8	119.3
Pioneer 84G62	2, 4, 5, 7	13.6	47	1	148.2*	112.6**	130.4
Garst 5464	4	12.7	54	1	145.2*	--	--
Dyna-Gro GX07163	2, 4	13.5	48	1	144.5*	--	--
DEKALB DKS53-67	3, 6	13.7	47	1	141.6*	--	--
DEKALB DKS54-00	3, 6	12.9	47	1	141.2*	89.4	115.3
Golden World GWX1488	1, 3, 4, 6	13.1	50	1	140.5*	--	--
Dyna-Gro 780B	2, 4	15.2	53	1	139.9*	98.2*	119.1
FFR X358	NA	12.7	53	1	138.8*	--	--
DEKALB DKS36-16	3, 6	13.0	41	1	137.6	--	--
DEKALB DK44	3, 6	12.3	51	1	137.0	94.8*	115.9
Golden World GWX1445	1, 3, 4, 6	12.8	45	1	136.5	109.5*	123.0
Dyna-Gro 751B	2, 4	13.4	54	1	134.4	103.9*	119.2
Dyna-Gro GX07467	2, 4	12.8	60	1	134.2	--	--
FFR 322	NA	12.8	54	1	133.4	100.7*	117.1
Dyna-Gro 754B	2, 4	11.9	50	1	132.1	107.2*	119.7
Pioneer 82G10	2, 4, 5, 7	14.7	52	1	130.6	--	--
Dyna-Gro GX07064	2, 4	11.5	46	1	129.6	--	--
Dyna-Gro 772B	6	12.8	54	1	128.6	--	--
Gateway GS595W	3, 4	11.7	49	1	122.4	--	--
DEKALB DKS42-20	3, 6	12.1	51	1	119.6	--	--
Dyna-Gro 758B	2, 4	13.2	44	1	118.7	91.8*	105.3
Dyna-Gro GX06170	2, 4	15.4	51	1	112.6	--	--
Garst 5750	4	11.8	53	1	104.3	--	--
DEKALB DKS37-07	3, 6	12.3	48	1	102.2	--	--
TEST AVERAGE		13.0	50	1	132.3	94.8	113.6
L.S.D. AT .10		0.8			15.7	22.5	
C.V. %		4.2			8.3	16.3	

-- Data not available.

** Highest yielding hybrid in the test.

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

+ Seed Treatments: 1= Allegiance (Metalaxyl); 2= Apron XL (Mefenoxam); 3= Captan; 4=Concep (Fluxofenim); 5= Cruiser (Thiamethoxam); 6= Gaucho (Imidacloprid); 7= Maxim XL (Fludioxonil)

TABLE 10. Performance of Standard Hybrids evaluated at Two Southeast Missouri locations (Bertrand, Portageville Loam) during 2007.

Bertrand

Planted: 05-23

Harvested: 09-12

Growing Season Rainfall: 17.2 in.

Irrigation: 8 in.

Portageville Loam

Planted: 05-09

Harvested: 08-29

Growing Season Rainfall: 16.7 in.

Irrigation: 9 in.

Brand-Hybrid	Yield (Bu/Acre)		Mean
	Bertrand	Portageville Loam	
Standard			
Pioneer 84G62	159.7*	148.2*	153.9**
Garst 5464	154.7*	145.2*	149.9*
DEKALB DKS53-67	149.7	141.6*	145.6*
Dyna-Go GX07467	153.7*	134.2	143.9
Dyna-Gro GX07163	141.7	144.5*	143.1
Golden World GWX1445	148.9	136.5	142.7
FFR 322	151.9*	133.4	142.6
Crow's 590	131.2	153.8**	142.5
FFR X358	145.5	138.8*	142.2
DEKALB DK44	146.3	137.0	141.6
Golden World GWX1488	140.4	140.5*	140.4
DEKALB DKS36-16	141.1	137.6	139.4
Dyna-Gro GX07064	146.1	129.6	137.8
Dyna-Gro 754B	143.6	132.1	137.8
Pioneer 82G10	143.4	130.6	137.0
Dyna-Gro 772B	145.1	128.6	136.8
DEKALB DKS54-00	131.2	141.2*	136.2
Dyna-Gro 780B	131.3	139.9*	135.6
Dyna-Gro 751B	135.3	134.4	134.8
Garst 5750	162.9**	104.3	133.6
DEKALB DKS42-20	140.6	119.6	130.1
DEKALB DKS37-07	157.9*	102.2	130.0
Dyna-Gro GX06170	140.6	112.6	126.6
Gateway GS595W	129.3	122.4	125.8
Dyna-Gro 758B	129.6	118.7	124.2
TEST AVERAGE	144.1	132.3	138.2
L.S.D. AT .10	11.6	15.7	9.6
C.V. %	5.4	8.3	6.9

** Highest yielding hybrid in the test.

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

Note: To view seed treatments for these hybrids refer to the location table or the characteristics chart.

Characteristics and Table Numbers for Grain Sorghum Hybrids used in 2007 Tests

Brand Hybrid	Seed Treatment	Maturity Days	Grain Color	Special Traits	Green Bug Biotype Res.	Table Numbers
Crow's 590	4	70	BZ	None	C,E	8, 9, 10
DEKALB DK44	3, 6	67	BZ	None	E	2, 3, 4, 5, 6, 8, 9, 10
DEKALB DKS36-16	3, 6	62	BZ	None	None	2, 3, 4, 5, 6, 8, 9, 10
DEKALB DKS37-07	3, 6	62	BZ	None	C,E,I	2, 3, 4, 5, 6, 8, 9, 10
DEKALB DKS42-20	3, 6	66	BZ	None	C,D,E	2, 3, 4, 5, 6, 8, 9, 10
DEKALB DKS53-67	3, 6	71	BZ	None	None	2, 3, 4, 5, 6, 8, 9, 10
DEKALB DKS54-00	3, 6	74	BZ	None	C,D,E,I	2, 3, 4, 5, 6, 8, 9, 10
Dyna-Go GX07467	2, 4	67	BZ	None	NA	8, 9, 10
Dyna-Gro 751B	2, 4	69	BZ	None	C,E	2, 3, 4, 5, 6, 8, 9, 10
Dyna-Gro 754B	2, 4	58	BZ	None	None	8, 9, 10
Dyna-Gro 758B	2, 4	60	BZ	None	None	8, 9, 10
Dyna-Gro 764B	6	65	BZ	None	C,E	2, 3, 4, 5, 6
Dyna-Gro 772B	6	68	BZ	None	C,E	2, 3, 4, 5, 6, 8, 9, 10
Dyna-Gro 780B	2, 4	65	BZ	None	C,E	8, 9, 10
Dyna-Gro GX06170	2, 4	74	BZ	None	NA	2, 3, 4, 5, 6, 8, 9, 10
Dyna-Gro GX06360	6	64	BZ	None	C,E	2, 3, 4, 5, 6
Dyna-Gro GX06750	6	73	BZ	None	C,E,I	2, 3, 4, 5, 6
Dyna-Gro GX07064	2, 4	64	BZ	None	NA	8, 9, 10
Dyna-Gro GX07163	2, 4	63	BZ	None	NA	8, 9, 10
Dyna-Gro GX07763	6	63	BZ	None	C,E	2, 3, 4, 5, 6
FFR 322	NA	64	R	None	E	8, 9, 10
FFR X358	NA	64	R	None	None	8, 9, 10
Garst 5464	4	68	BZ	None	E	2, 3, 4, 5, 6, 8, 9, 10
Garst 5750	4	62	BZ	None	E	8, 9, 10
Gateway GS595W	3, 4	95	W	None	C,E	8, 9, 10
Golden World GWX1445	1, 3, 4, 6	61	R	NA	NA	8, 9, 10
Golden World GWX1488	1, 3, 4, 6	63	BZ	NA	NA	8, 9, 10
NC+ 7B51	2, 6	70	BZ	None	None	2, 3, 4, 5, 6
NC+ 7R34	2, 6	70	R	None	None	2, 3, 4, 5, 6
Pioneer 82G10	2, 4, 5, 7	72	BZ	None	None	8, 9, 10
Pioneer 84G62	2, 4, 5, 7	72	BZ	None	E	2, 3, 4, 5, 6, 8, 9, 10
Pioneer 85Y40	2, 4, 5, 7	70	W	None	None	2, 3, 4, 5, 6

* Descriptions were provided by the companies submitting them for evaluation

NA – Information Not Available

Seed Treatments: 1= Allegiance (Metalaxyl); 2= Apron XL (Mefenoxam); 3= Captan; 4=Concep (Fluxofenim); 5= Cruiser (Thiamethoxam); 6= Gaucho (Imidacloprid); 7= Maxim XL (Fludioxonil)

Maturity Days: Days to 50% bloom

Grain Color: BZ = Bronze; R = Red; W = White

Green Bug Biotype Resistance: C,D,E, I

Sources for Grain Sorghum Hybrids Used in 2007 Tests

Brand	Company and Address	Phone Number	URL
Crow's	Crow's Hybrid Corn Company PO Box 157, Kentland, IN 47951	270-519-9286	crowshybrid.com
Dekalb	Monsanto 7159 N. 247th St. W., Mt. Hope, KS 67108	316-445-2290	monsanto.com
Dyna Gro	UAP - Dyna-Gro 57 Germantown Court Suite 200, Cordova, TN 38018	901-755-7566	dyna-groseed.com
Dyna Gro	UAP Dyna-Gro Seeds 1506 W. Wall, Harrisonville, MO 64701	308-237-5194	dyna-groseed.com
FFR	FFR Seed 969 Cloverleaf Dr., Southaven, MS 38671	901-652-0903	ourcoop.com
Garst	Garst Seed Co. 2369 330th Street, Slater, IA 50244	800-831-6630	garstseed.com
Gateway	Gateway Seed Co. Inc. 5517 Van Buren Rd., Nashville, IL 62263	618-327-8000	gatewayseeds.com
Golden World	Crosbyton Seed Co. 306 E Main, PO Box 429, Crosbyton, TX 79322	806-675-2308	crosbytonseed.com
NC+ Hybrids	Channel Bio Corp PO Box 278, Kentland, IN 49951	620-694-7400	channelbio.com
Pioneer	Pioneer Hi-Bred Int. Inc. 700 Boulevard South, Suite 302, Huntsville, AL 35802	800-331-2475	pioneer.com
Pioneer	Pioneer Hi-Bred Int. 8200 Cody Dr. Suite A, Lincoln, NE 68512	800-228-4050	pioneer.com

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