

GRAIN SORGHUM PERFORMANCE TRIALS IN OKLAHOMA, 2010

PRODUCTION TECHNOLOGY CROPS

OKLAHOMA COOPERATIVE EXTENSION SERVICE
DEPARTMENT OF PLANT AND SOIL SCIENCES
DIVISION OF AGRICULTURAL SCIENCES & NATURAL RESOURCES
OKLAHOMA STATE UNIVERSITY

PT 2010-8

December 2010

Vol. 22, No.8

Rick Kochenower

Area Research and Extension Specialist
Plant and Soil Sciences Department

Roger Gribble

Area Agronomist NW
Oklahoma Cooperative Extension Service

TRIAL OBJECTIVES AND PROCEDURES

Each year, performance trials for hybrid grain sorghum are conducted by the Oklahoma Cooperative Extension Service. These trials provide producers, extension educators, industry representatives, and researchers with information for hybrid grain sorghums marketed in Oklahoma.

Performance trials are conducted at ten locations in Oklahoma: Apache, Alva, Blackwell, Cherokee, Enid, Goodwell, Homestead, Keyes, Gate, and Tipton. Dry-land trials are conducted at all locations, with an additional limited irrigation trial at Goodwell. The Cherokee, Homestead, and Gate locations are uniquely designed trials to evaluate certain hybrids (generally early and medium maturity) for planting in late April. In 2010 trials were continued at Enid and Alva to evaluate hybrids for use as a double crop.

Grain sorghum hybrids entered (Table 1) were assigned by companies to their respective maturity groups (early, medium, and late) and trial locations, therefore, all hybrids were not entered at all locations. Hybrids tested at the Cherokee, Homestead, Enid, Alva, and Slapout locations were determined by Oklahoma State University. Companies submitted all hybrid characteristics presented in Table 1. This information was not determined or verified by Oklahoma State University. Company participation was voluntary, therefore some hybrids marketed in Oklahoma were not included in the test. Each maturity group was tested in a randomized complete block design with four replications. Plots were two 30-inch rows by 25 feet. Plots were trimmed to 20 feet prior to harvest. Tractor powered cone planters were used to plant all trials with seeding rates adjusted for trial location. Trials were harvested with a Massey-Ferguson model, 8 plot combine.

Highlights

The highlight in 2010 was the high yields at all locations. The highest dry-land yield at all locations was Cherokee with 129 bu/ac trial mean. There was also an area from Enid to Blackwell that yields were adversely affected by fusarium stalk rot. The rot was a function of the year, with high rainfall and temperatures. Double crops yields were good for most producers but the area between Fairview and Okeene was drier than surrounding areas. New in 2010 are short notes about each trial location accompanying the result tables.

Target populations, cooperating producers, fertilization, cultural practices, soil series, and herbicide use on all trials are listed individually in the results tables. Rainfall data from the nearest Mesonet site are also listed. Some trials are long

distances from the nearest Mesonet site; therefore rainfall could be greater or less than reported.

GROWING CONDITIONS

Soil moisture conditions were excellent for planting at the April planted trials. Soil temperatures were also higher than in 2009. Therefore, better plant emergence was observed in 2010. The planting period in April did not have any major delays. Panhandle dry-land planting was delayed until moisture from rainfall in mid June. Rainfall in 2010 was plentiful for the northwest area of the state, with trial locations receiving average or above precipitation. In other regions rainfall was near the long-term average and was timely, resulting in outstanding yields. Planting was delayed for double crop sorghum due to rainfall. An extended warm fall allowed all hybrids in double crop trials to mature, although an area east of Enid experienced a frost in early October that affected yields and test weights.

Insects were not a major concern in 2010, but due to late harvest many producers reported some bird damage

RESULTS

Grain yields in 2010 were higher than 2009, and producers reported the highest yields obtained were on late May and early June plantings.

Grain yields are reported bushel per acre of threshed grain, adjusted to a moisture content of 14.0% (Tables 2-11). Test weight, plant population, and the number of heads per acre at harvest are reported.

Bird damage and lodging are also reported when present at a location. Different plant populations at each location prevent accurate comparison between locations. Also comparisons across maturity groups were not conducted. Producers should note that late

maturing hybrids will generally yield more than early and medium maturity hybrids. However, the availability of moisture at critical crop development periods often influences yield more than the yield differences associated with maturity groups.

When choosing a maturity group, the type of cropping system, planting date, planting rate and potential moisture should be taken into consideration. For more information consult **Fact Sheet No. 2034** Grain Sorghum Planting Rates and Dates, and **Fact Sheet No. 2113** Grain Sorghum Production Calendar.

Least Significant Difference (L.S.D.) is a statistical test of yield differences and is shown at the bottom of each table. Unless two hybrids differ by at least the L.S.D. shown, little confidence can be placed in one hybrid being superior to another and the difference is probably not real.

The coefficient of variation (C.V.) is provided as an estimate of the precision of the data with respect to the mean for that location and maturity group. To provide some indication of yield stability, 2-year and 3-year means for yield and test weight are provided where trials have been conducted for more than one year with more than three entries per maturity group. Producers interested in comparing hybrids for consistency of yield in a specific area should consult these tables.

*The following people have contributed to this report by assisting in crop production, data collection, and publication: Donna George, Lawrence Bohl, Rocky Thacker, Eddie Pickard, Jeff Bedwell, Jimmy Rhodes, Tommy Puffinbarger, Todd Trennepohl, Cori Woelk, Jacob Baker, Cameron Murley, and Wilson Henry. Their efforts are greatly appreciated. Also would like to thank the **Oklahoma Grain Sorghum Commission and The United Sorghum Checkoff Program** for their financial support.*

Oklahoma State University, in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990, and other federal laws and regulations, does not discriminate on the basis of race, color, national origin, sex, age, religion, disability, or status as a veteran in any of its policies, practices or procedures. This includes but is not limited to admissions, employment, financial aid, and educational services.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Bob Whitson, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Dean of the Division of Agricultural Sciences and Natural Resources

Table 1. Seed source and hybrid characteristics of grain sorghums in the Oklahoma Grain Sorghum Performance Trials, 2010. All hybrids are susceptible to birds and are single cross.

Company Brand Name	Hybrid	Seed Color	Endo- sperm	Days to Mid-bloom	Greenbug Resistance	Trial Location
Channel Bio LLC	5B90	Bz	NA	62	C	3
Channel Bio LLC	7B11	Bz	Hy	67	E,I	1
DeKalb	DKS 28-05	Bz	HY	58	----	1
DeKalb	Pulsar	Bz	HY	60	C,E,I	1
DeKalb	DKS 37-07	Bz	HY	60	C,E,I	1
DeKalb	DKS 29-28	Bz	HY	59	E	1
DeKalb	DKS 44-20	BZ	HY	67	NA	1
DeKalb	DKS 36-06	Bz	Hy	63	E,I	1
DeKalb	DKS 49-45	Bz	Hy	70	E,I	1
DeKalb	DKS 53-67	Bz	HY	71	C,E,I	4
DeKalb	DKS 54-00	Bz	HY	72	C,E,I	4
DeKalb	DKS 54-03	Bz	HY	74	NA	4
Johnston Seed Co.	JS-207	Bz	Hy	58	C	1
Johnston Seed Co.	JS-222	Bz	Hy	68	C, E	1
Johnston Seed Co.	JS-012	W	HY	63	C	1
Johnston Seed Co.	JS-056	R	N	65	C	1
Johnston Seed Co.	JS-524	R	N	65	C	1
Pioneer Hi-Bred Int.	85G01	R	W	69	----	1
Pioneer Hi-Bred Int.	86G32	R	W	65	----	1
Pioneer Hi-Bred Int.	87P06	R	W	63	----	1
Pioneer Hi-Bred Int.	84G62	Bz	Y	72	----	4
Pioneer Hi-Bred Int.	85Y40	W	Y	70	----	1
Pioneer Hi-Bred Int.	84P74	R	W	70	----	4
Sorghum Partners Inc	SP3303	Y	Y	59	C	2
Sorghum Partners Inc	X449	Bz	HY	67	E	1
Sorghum Partners Inc	KS 585	Bz	HY	67	C, E	1
Sorghum Partners Inc	NK4420	Bz	HY	65	C,E	2
Sorghum Partners Inc	NK5418	Bz	HY	67	C,E	1
Sorghum Partners Inc	NK 7633	Bz	HY	72	C	1
Sorghum Partners Inc	NK6638	Bz	HY	70	C	1
Syngenta Seeds	5745	R	N	62	----	1
Syngenta Seeds	5464	Bz	N	69	C, E	1
Syngenta Seeds	5613	Bz	N	65	C,D,E	1
Syngenta Seeds	5556	R	N	67	C	1
Syngenta Seeds	H-486	R	N	68	----	1
Triumph Seed	TR 452	R	HY	65	C,E	1
Triumph Seed	TRX 84732	R	HY	68	C,E	1
Triumph Seed	TRX 05631	Bz	HY	70	----	1

Trial locations: 1 – all; 2 – panhandle only; 3 – (Altus, Tipton, Blackwell); 4 – irrigated only (OPREC)

Seed Color: Br – Brown; W – White; Y – Yellow; Bz – Bronze; R – Red; C – Cream

Endosperm: HW – heterowaxy; W – waxy; HY – Heteroyellow; Y – Yellow; N – Non-waxy

Greenbug Resistance: Biotype hybrid is resistance too

Table 2. Results from Apache grain sorghum performance trial, 2010.

Company Brand Name	Hybrid	Grain Yield Bu/ac 2010	Test weight Lb/bu 2010	Harvest Moisture	Plant Population plants/ac	Head Population heads/plant	Deer Damage %
Less than 60 days to mid-bloom							
DeKalb	DKS 37-07	82	57.0	11.9	37,800	1.31	0
DeKalb	DKS 28-05	79	55.0	11.4	37,600	1.64	0
DeKalb	Pulsar	67	56.2	12.0	28,100	1.60	0
Johnston Seed Co.	JS-207	42	53.3	11.2	31,100	1.36	28
DeKalb	DKS 29-28	24	51.5	12.2	34,300	1.32	33
	Mean	59	54.6	11.8	33,800	1.44	----
	C.V.%	18.8	2.0	4.8	8.7	8.7	----
	L.S.D.	17	1.7	NS	4,500	0.19	----

Company Brand Name	Hybrid	Grain Yield Bu/ac 2010	Test weight Lb/bu 2010	Harvest Moisture	Plant Population plants/ac	Head Population heads/plant	Deer Damage %	Lodging %
60 to 69 days to mid-bloom								
DeKalb	DKS 44-20	96	56.7	12.1	46,200	1.23	5	5
Pioneer Hi-Bred Int.	85G01	95	55.2	11.8	40,400	1.31	0	0
Sorghum Partners Inc	KS 585	94	56.3	12.0	37,200	1.51	0	0
Sorghum Partners Inc	X449	92	57.6	12.3	45,700	1.22	0	0
Channel Bio LLC	5B90	90	55.7	11.8	36,600	1.45	0	0
Syngenta Seeds	5613	89	56.3	12.2	37,600	1.29	0	0
Johnston Seed Co.	JS-222	87	56.0	12.2	34,300	1.34	0	0
Syngenta Seeds	H-486	86	54.8	12.0	40,700	1.20	5	0
Sorghum Partners Inc	NK5418	84	54.6	11.7	35,800	1.48	0	15
Channel Bio LLC	7B11	83	57.3	12.5	30,800	1.48	0	0
Triumph Seed	TR 452	83	56.6	11.9	37,000	1.28	0	0
Johnston Seed Co.	JS-056	82	55.3	11.9	34,200	1.30	0	0
Syngenta Seeds	5556	80	55.1	11.9	34,600	1.31	0	0
Pioneer Hi-Bred Int.	86G32	78	55.3	12.0	33,400	1.62	0	0
Syngenta Seeds	5745	77	53.6	11.6	35,400	1.44	0	0
DeKalb	DKS 36-06	76	55.4	11.8	38,200	1.35	0	0
Johnston Seed Co.	JS-524	75	53.2	12.0	28,200	1.47	0	35
Syngenta Seeds	5464	75	55.1	12.0	32,800	1.32	0	0
Johnston Seed Co.	JS-012	67	53.7	11.1	28,400	1.46	0	0
Triumph Seed	TRX 84732	65	55.9	12.4	25,800	1.46	0	10
Pioneer Hi-Bred Int.	87P06	52	54.2	11.2	36,200	1.50	30	0
	Mean	81	55.4	11.9	35,900	1.38	----	----
	C.V.%	10.9	2.7	2.2	8.7	9.9	----	----
	L.S.D.	13	2.1	0.4	4,400	0.19	----	----

Table 2. Continued.

Company Brand Name	Hybrid	Grain Yield Bu/ac 2010	Test weight Lb/bu 2010	Harvest Moisture	Plant Population plants/ac	Head Population heads/plant	Lodging %
70 days and greater to mid-bloom							
Pioneer Hi-Bred Int.	85Y40	85	55.8	11.7	34,600	1.38	14
DeKalb	DKS 49-45	81	56.5	11.7	37,300	1.31	0
Sorghum Partners Inc	NK6638	73	55.2	11.5	37,000	1.28	34
Sorghum Partners Inc	NK 7633	69	55.3	11.3	27,200	1.57	0
Triumph Seed	TRX 05631	57	51.1	12.1	26,700	1.40	0
	Mean	73	54.8	11.6	32,600	1.39	----
	C.V.%	12	1.4	2.1	8.0	8.9	----
	L.S.D.	17	1.4	0.5	4,900	NS	----

Cooperator: Alan Mindemann

No-till Practices: Sprayed and killed wheat in early April of 2010

Fertilizer: N: 80 lbs/ac + 5 gal/ac 10-34-0 with planter

Planting Date: April 26, 2010

Seeding rate 56,000 seeds/ac

Herbicide: 2 qt/ac Cinch ATZ Lite (Preemergence)

Soil Series: Hollister Silt Loam

Soil Test: N: 52 P: 148 K: 611 pH: 5.9

First hybrid headed out June 26

Harvest Date: September 18, 2010

Target Population 45,000 plants/ac

Monthly Rainfall (in.)	Apr.	May	June	July	Aug.	Total
2010:	2.66	1.68	4.01	5.72	0.93	15.00
Long term mean:	2.99	4.79	3.83	2.23	2.55	16.39

Notes:

Stands were reduced due to the short interval between wheat being sprayed and planting date.

Table 3. Results from Blackwell grain sorghum performance trial, 2010.

Company Brand Name	Hybrid	Grain Yield Bu/ac 2010	Test weight Lb/bu 2010	Harvest Moisture	Plant Population plants/ac	Lodging %
Less than 60 days to mid-bloom						
DeKalb	DKS 28-05	87	57.3	13.0	41,600	8
DeKalb	DKS 37-07	83	57.6	13.2	42,000	38
Johnston Seed Co.	JS-207	77	55.5	13.2	43,300	5
DeKalb	Pulsar	69	55.9	13.5	25,900	5
DeKalb	DKS 29-28	39	57.7	13.5	43,200	0
	Mean	71	56.2	13.3	39,200	-----
	C.V.%	10.7	3.7	3.0	10.1	-----
	L.S.D.	12	NS	NS	6,100	-----

Company Brand Name	Hybrid	Grain Yield Bu/ac 2010	Test weight Lb/bu 2010	Harvest Moisture	Plant Population plants/ac	Lodging %
60 to 69 days to mid-bloom						
DeKalb	DKS 44-20	92	58.2	14.1	45,200	0
Syngenta Seeds	H-486	89	56.6	13.5	43,800	10
Sorghum Partners Inc	KS 585	89	59.0	13.3	36,300	0
Sorghum Partners Inc	NK5418	88	56.8	13.3	37,100	0
Channel Bio LLC	5B90	87	58.8	13.2	40,000	0
Pioneer Hi-Bred Int.	87P06	85	57.2	12.9	42,500	0
Pioneer Hi-Bred Int.	85G01	83	57.6	12.7	47,200	60
Pioneer Hi-Bred Int.	86G32	83	55.5	13.1	34,400	18
Syngenta Seeds	5745	83	55.9	13.5	40,200	13
Sorghum Partners Inc	X449	81	57.6	13.5	45,300	25
Syngenta Seeds	5613	80	56.0	13.1	40,100	40
Triumph Seed	TR 452	78	57.8	13.4	39,900	5
Triumph Seed	TRX 84732	77	56.1	15.8	26,500	3
Johnston Seed Co.	JS-524	76	55.4	13.1	31,000	10
Johnston Seed Co.	JS-222	75	56.7	13.8	40,000	23
Channel Bio LLC	7B11	75	58.2	14.3	30,300	3
Johnston Seed Co.	JS-056	74	56.8	12.9	44,300	30
Syngenta Seeds	5464	74	57.2	15.0	22,300	5
Syngenta Seeds	5556	72	57.3	13.1	44,900	30
DeKalb	DKS 36-06	70	57.9	13.1	35,900	48
Johnston Seed Co.	JS - 012	69	56.2	12.8	30,500	33
	Mean	80	57.1	13.5	38,000	-----
	C.V.%	12.4	1.5	4.3	17.5	-----
	L.S.D.	14.0	1.2	0.8	9,400	-----

Table 3. Continued.

Company Brand Name	Hybrid	Grain Yield Bu/ac 2010	Test weight Lb/bu 2010	Harvest Moisture	Plant Population plants/ac	Lodging %
70 days and greater to mid-bloom						
Sorghum Partners Inc	NK 7633	82	55.7	14.6	30,500	0
Sorghum Partners Inc	NK6638	63	55.4	12.2	39,600	63
Triumph Seed	TRX 05631	63	55.0	12.2	36,700	65
DeKalb	DKS 49-45	59	55.2	12.4	39,800	83
Pioneer Hi-Bred Int.	85Y40	54	56.1	11.9	38,800	93
	Mean	64	55.5	12.6	37,100	-----
	C.V.%	14.3	3.0	5.9	15.4	-----
	L.S.D.	14.2	NS	1.2	NS	-----

Cooperator: Bill and Louise Rigdon
 No-till Practices: Followed Soybean in 2009
 Fertilizer: N: 120 lbs/ac + 5 gal/ac 10-34-0 with planter
 Planting Date: April 27, 2010
 Seeding rate 56,000 seeds/ac
 Herbicide: 2 qt/ac Cinch ATZ Lite (Preemergence)

Soil Series: Kirkland Silt Loam
 Soil Test: N: 11 P: 135 K: 461 pH: 5.3
 First hybrid headed out June 25
 Harvest Date: August 23, 2010
 Target Population 45,000 plants/ac

Monthly Rainfall (in.)	Apr.	May	June	July	Aug.	Total
2010:	3.42	6.83	7.41	3.00	3.96	24.62
Long term mean:	3.28	5.83	4.05	2.68	3.19	19.03

Notes:

Yields were significantly reduced by heavy fusarium stalk rot infestation charcoal rot was also found but was minimal. The fusarium is the reason for the unusually high incidence of lodging.

Table 4. Results from Cherokee grain sorghum performance trial, 2010.

Company Brand Name	Hybrid	Grain Yield bu/ac		Test weight lb/bu		Harvest Moisture	Plant Population plants/ac	Head Population heads/plant
		2010	Two-year	2010	Two-year			
Pioneer Hi-Bred Int.	85G03	150	122	57.9	57.8	12.5	38,000	1.78
Sorghum Partners Inc	KS 585	156	117	59.9	59.4	12.3	38,000	1.69
Syngenta Seeds	5613	157	112	57.7	57.5	12.7	42,100	1.35
Syngenta Seeds	H-486	142	109	57.2	56.7	12.2	41,200	1.29
Johnston Seed Co.	JS-222	145	108	58.7	57.5	12.3	35,900	1.55
DeKalb	DKS 37-07	134	105	60.0	59.1	12.1	40,100	1.39
NC+ Hybrids	5B90	124	105	59.6	59.3	12.4	39,700	1.60
Johnston Seed Co.	JS-056	134	104	57.9	57.9	12.3	42,300	1.40
DEKALB	DKS 36-06	133	103	59.7	58.7	12.3	34,100	1.71
DEKALB	DKS 44-20	119	97	59.3	59.0	13.7	51,300	1.26
Triumph Seed	TR 452	113	92	57.5	57.7	12.7	34,100	1.54
Sorghum Partners Inc	NK6638	109	89	58.6	57.8	12.2	38,400	1.42
Pioneer Hi-Bred Int.	87P06	116	89	57.7	57.0	12.8	39,300	1.91
DEKALB	DKS 28-05	112	87	57.2	57.1	12.5	39,200	1.88
Johnston Seed Co.	JS-207	88	65	55.0	55.4	11.9	29,800	1.76
Sorghum Partners Inc	X 449	144	----	59.6	----	12.5	42,800	1.36
Triumph Seed	TRX 84732	125	----	57.7	----	13.3	23,900	2.11
Mean		129	100	58.3	57.9	12.1	38,200	1.59
C.V.%		12.1	13.6	1.8	1.9	7.1	8.8	9.9
L.S.D.		22	14	1.5	1.1	NS	4,800	0.22

Cooperator: Doug McMurtrey

No-till Practices: Followed soybean in 2009

Fertilizer: N: 118 lbs N/ac + 5 gal/ac 10-34-0 with planter

Planting Date: April 27, 2010

Seeding rate 56,000 seeds/ac

Herbicide 2.5 qt/ac Degree Extra

Soil Series: Kay Silt Loam

Soil Test: N: 17 P: 110 K: 500 pH: 5.8

First hybrid headed out June 23

Harvest Date: August 30, 2010

Target Population 45,000 plants/ac

Monthly Rainfall (in.)	Apr.	May	June	July	Aug.	Total
2010:	1.99	8.16	2.89	4.42	6.44	23.90
Long term mean:	3.28	5.83	4.05	2.68	3.19	19.03

Notes:

Best yield in dry-land test plots in last 12 years.

Table 5. Results from Enid double crop grain sorghum performance trial, 2010.

Company Brand Name	Hybrid	Grain Yield bu/ac		Test weight lb/bu		Harvest Moisture	Plant Population plants/ac	Head Population heads/plant
		2010	Two- year	2010	Two-year			
Johnston Seed Co.	JS-056	106	84	58.1	57.0	18.5	25,000	1.62
Triumph Seed	TR 452	111	83	59.3	58.0	17.4	24,700	1.50
Channel Bio LLC	5B90	108	78	59.7	57.6	17.3	19,300	2.27
DeKalb	DKS 44-20	94	77	60.3	58.7	17.5	24,300	1.46
Johnston Seed Co.	JS 222	98	76	58.7	57.6	18.4	20,700	1.42
Sorghum Partners Inc	NK5418	87	72	59.2	57.2	17.4	19,500	2.07
DeKalb	DKS 37-07	93	71	59.3	57.7	17.5	23,300	1.59
Syngenta Seeds	H-486	81	70	58.0	56.5	17.6	19,100	1.61
Pioneer Hi-Bred Int.	86G32	89	69	58.4	56.8	17.0	16,100	2.45
Syngenta Seeds	5464	72	62	58.9	57.1	18.6	13,900	1.53
Pioneer Hi-Bred Int.	87P06	34	39	56.6	56.1	17.4	14,700	1.94
Sorghum Partners Inc	X449	117	-----	60.1	-----	17.8	21,900	1.78
Pioneer Hi-Bred Int.	85G01	108	-----	58.5	-----	17.7	21,800	1.94
Channel Bio LLC	7B11	106	-----	59.2	-----	19.0	17,600	1.93
DeKalb	DKS 28-05	94	-----	57.9	-----	16.6	19,700	2.49
Triumph Seed	TRX 84732	94	-----	55.8	-----	21.3	16,000	2.22
Sorghum Partners Inc	NK4420	78	-----	59.9	-----	17.4	20,900	1.88
Johnston Seed Co.	JS-012	75	-----	58.8	-----	17.0	18,000	1.66
Syngenta Seeds	5613	71	-----	58.2	-----	18.1	15,500	1.61
	Mean	90	72	58.7	57.3	17.8	19,600	1.84
	C.V.%	12.1	20.3	1.5	2.1	2.4	20.1	17.5
	L.S.D.	16	16	1.2	1.3	0.6	5,600	0.46

Cooperator: James and Richard Wuerflein
 No-till Practices: Following wheat in 2010
 Fertilizer: N: 100 lbs N/ac + 5 gal/ac 10-34-0 with planter
 Planting Date: June 23, 2010
 Seeding rate 56,000 seeds/ac

Soil Series: Pond Creek Silt Loam
 Soil Test: NA
 Herbicide 2 qt/ac Cinch ATZ Lite
 Harvest Date: November 23, 2010
 Target Population 45,000 plants/ac

Monthly Rainfall (in.)		June	July	Aug	Sept	Oct	Total
	010:	3.71	6.56	3.58	3.37	1.45	18.67
	Long term mean:	4.26	2.89	3.35	3.39	3.17	17.06

Notes:

Stand was reduced due to heavy rainfall after planting and some injury due to atrazine was observed when counting plants.
 Pioneer 87P06 yield was reduced due to heavy deer damage, was only one with significant damage.

Table 6. Results from Gate grain sorghum performance trial, 2010.

Company Brand Name	Hybrid	Grain Yield Bu/ac 2010	Test weight Lb/bu 2010	Harvest Moisture	Plant Population plants/ac	Head Population heads/plant	Bird Damage %
Sorghum Partners Inc	KS 585	71	60.1	13.7	19,200	2.28	15
Johnston Seed Co.	JS-056	62	56.7	16.0	21,900	1.86	20
Pioneer Hi-Bred Int.	85G03	60	56.8	14.2	22,100	2.00	25
Johnston Seed Co.	JS-222	60	58.7	13.6	23,400	1.70	40
NC+ Hybrids	5B90	59	57.1	15.0	18,100	2.46	30
Pioneer Hi-Bred Int.	87P06	58	57.3	11.7	18,400	2.56	40
DEKALB	DKS 28-05	57	56.2	11.8	21,900	2.26	30
DEKALB	DKS 44-20	57	58.3	13.6	28,600	1.58	45
DeKalb	DKS 37-07	54	58.5	17.8	23,400	1.91	50
Sorghum Partners Inc	X 449	54	57.1	18.9	21,600	1.90	65
Triumph Seed	TRX 84732	49	55.2	18.7	11,900	2.57	25
Johnston Seed Co.	JS-207	48	56.3	13.4	18,300	1.81	25
Syngenta Seeds	H-486	47	54.2	18.4	20,300	1.63	50
Syngenta Seeds	5613	41	56.6	13.6	20,200	1.69	50
Sorghum Partners Inc	NK6638	40	54.8	19.0	17,400	1.90	55
Triumph Seed	TR 452	37	55.7	15.6	18,700	1.83	50
DEKALB	DKS 36-06	32	54.5	16.2	17,000	2.28	75
	Mean	52	56.7	15.0	20,100	2.01	-----
	C.V.%	15.6	2.7	7.7	9.9	7.3	-----
	L.S.D.	17.2	3.2	2.5	4,200	0.31	-----

Cooperator: Gary Graves

No-till Practices: Followed grazed volunteer wheat

Fertilizer: N: 120 lbs/ac + 5 gal/ac 10-34-0 with planter

Planting Date: April 27, 2010

Seeding rate 47,000 seeds/ac

Herbicide: 2 qt/ac Cinch ATZ Lite (Preemergence)

Soil Series: Bippus Clay Loam

Soil Test: N: 6 P: 56 K: 1,468 pH: 7.9

First hybrid headed out June 23

Harvest Date: August 30, 2010

Target Population 30,000 plants/ac

Monthly Rainfall (in.)	Apr.	May	June	July	Aug.	Total
2010:	2.00	2.83	4.51	4.51	2.37	14.26
Long term mean:	1.91	3.19	3.00	2.66	2.56	13.32

Notes:

First year of trial, with the trial being only early planted sorghum in the area, bird damage affected yields significantly.

Table 7. Results from Homestead grain sorghum performance trial, 2010.

Company Brand Name	Hybrid	Grain Yield Bu/ac 2010	Test weight Lb/bu 2010	Harvest Moisture	Plant Population plants/ac	Head Population heads/plant
Sorghum Partners Inc	X 449	110	59.0	11.9	35,000	1.43
Pioneer Hi-Bred Int.	85G03	110	57.6	11.7	29,000	2.02
DEKALB	DKS 44-20	109	59.1	11.8	39,000	1.36
Johnston Seed Co.	JS-222	107	58.0	11.7	28,700	1.51
Syngenta Seeds	5613	102	57.3	11.7	31,700	1.41
Sorghum Partners Inc	NK6638	98	57.8	11.4	22,300	1.78
Triumph Seed	TR 452	93	58.6	11.6	26,500	1.51
DeKalb	DKS 37-07	92	58.5	11.8	26,400	1.68
Syngenta Seeds	H-486	91	58.1	11.7	32,700	1.23
DEKALB	DKS 36-06	91	58.8	11.8	23,800	1.67
Pioneer Hi-Bred Int.	87P06	89	56.9	11.9	27,600	2.20
NC+ Hybrids	5B90	86	58.2	11.5	27,100	1.66
Triumph Seed	TRX 84732	85	57.5	11.7	18,200	2.06
Johnston Seed Co.	JS-056	84	57.3	11.6	34,500	1.32
DEKALB	DKS 28-05	83	53.9	12.5	26,800	1.99
Sorghum Partners Inc	KS 585	80	59.1	11.6	22,100	1.62
Johnston Seed Co.	JS-207	74	56.0	11.1	29,600	1.49
	Mean	93	57.7	11.7	28,300	1.64
	C.V.%	8.6	1.7	3.8	11.3	18.5
	L.S.D.	11	1.4	NS	4,600	0.43

Cooperator: Brook Strader

Min-till tillage Practices: Grain sorghum in 2009

Fertilizer: N: 130 lbs N + 5 gal/ac 10-34-0 with planter

Seeding rate 56,000 plants/ac

Planting Date: April 26, 2010

Herbicide: Cinch ATZ Lite 2.0 qts/ac (Preemergence)

Soil Series: Canadian Fine Sandy Loam

Soil Test: N: 9 P: 39 K: 409 pH: 7.0

First hybrid headed out June 20

Target Population 45,000 plants/ac

Harvest Date: August 30, 2010

Monthly Rainfall (in.)

	Apr.	May	June	July	Aug.	Total
2010:	3.96	5.05	2.05	3.78	0.63	15.47
Long term mean:	2.50	4.20	3.20	2.70	2.80	15.40

Notes:

Stands were reduced due to heavy rainfall just prior to emergence.

Table 8. Results from Keyes grain sorghum performance trial, 2010.

Company Brand Name	Hybrid	Grain Yield Bu/ac 2010	Test weight Lb/bu 2010	Harvest Moisture	Plant Population plants/ac	Head Population heads/plant
Less than 60 days to mid-bloom						
DeKalb	DKS 37-07	132	59.7	12.4	16,700	3.02
DeKalb	DKS 28-05	128	56.7	11.5	18,300	3.44
Johnston Seed Co.	JS-207	103	57.8	11.8	13,200	3.58
DeKalb	Pulsar	97	58.2	12.4	12,600	3.32
DeKalb	DKS 29-28	93	58.1	11.6	17,600	3.25
Sorghum Partners Inc	SP3303	74	58.9	11.8	8,400	3.59
	Mean	105	58.2	11.9	14,400	3.37
	C.V.%	17.2	1.0	2.9	23.0	18.7
	L.S.D.	27	0.9	0.5	5,000	NS

Company Brand Name	Hybrid	Grain Yield Bu/ac 2010	Test weight Lb/bu 2010	Harvest Moisture	Plant Population plants/ac	Head Population heads/plant	Lodging %
60 to 69 days to mid-bloom							
Johnston Seed Co.	JS-222	128	58.5	12.9	17,900	2.42	0
DeKalb	DKS 36-06	122	59.3	12.7	15,600	2.76	0
Triumph Seed	TR 452	120	59.0	12.0	13,700	2.98	0
DeKalb	DKS 44-20	119	59.6	12.5	20,000	2.22	0
Sorghum Partners Inc	KS 585	116	59.6	12.6	13,400	3.25	0
Johnston Seed Co.	JS-524	112	58.0	12.2	12,600	3.28	0
Syngenta Seeds	5464	112	58.3	12.6	15,700	2.70	0
Pioneer Hi-Bred Int.	85G01	111	58.7	11.8	18,300	2.29	15
Sorghum Partners Inc	X449	110	59.7	12.8	16,700	2.95	5
Pioneer Hi-Bred Int.	86G32	110	57.3	12.1	14,000	3.59	0
Syngenta Seeds	5613	109	59.0	12.1	14,200	2.92	0
Syngenta Seeds	H-486	109	58.0	13.3	15,700	3.01	0
Triumph Seed	TRX 84732	105	59.0	14.1	10,800	3.56	0
Sorghum Partners Inc	NK5418	103	58.9	12.0	14,200	3.27	15
Johnston Seed Co.	JS-012	100	59.3	12.0	14,200	2.80	0
Johnston Seed Co.	JS-056	100	59.0	12.0	13,400	2.82	5
Syngenta Seeds	5556	99	58.9	12.3	13,600	2.87	5
Sorghum Partners Inc	NK4420	87	58.9	12.3	16,000	2.40	8
Syngenta Seeds	5745	82	57.1	11.5	15,000	2.75	0
Pioneer Hi-Bred Int.	87P06	80	57.5	11.4	13,000	3.47	5
	Mean	107	58.7	12.3	14,900	2.91	-----
	C.V.%	18.2	1.3	3.6	18.2	18.2	-----
	L.S.D.	28	1.1	0.6	3,800	0.78	-----

Table 8. Continued.

Company Brand Name	Hybrid	Grain Yield Bu/ac 2010	Test weight Lb/bu 2010	Harvest Moisture	Plant Population plants/ac	Head Population heads/plant
70 days and greater to mid-bloom						
Sorghum Partners Inc	NK6638	131	59.1	12.9	14,700	3.06
Triumph Seed	TRX 05631	116	58.2	12.3	10,500	2.82
DeKalb	DKS 49-45	130	59.1	13.3	13,700	3.23
Sorghum Partners Inc	NK 7633	118	59.2	13.7	12,000	3.14
Pioneer Hi-Bred Int.	85Y40	133	59.6	12.6	14,700	3.31
	Mean	126	59.0	12.9	13,100	3.11
	C.V.%	10.9	0.8	2.0	20.5	11.4
	L.S.D.	21	0.7	0.4	NS	NS

Cooperator: JB Stewart
 Min-till tillage Practices: Wheat in 2009
 Fertilizer: N: 50 lbs N + 5 gal/ac 10-34-0 with planter
 Seeding rate 27,400 plants/ac
 Planting Date: April 26, 2010
 Herbicide: Cinch ATZ Lite 2.0 qts/ac (Preemergence)

Soil Series: Richfield Clay Loam
 Soil Test: N: 9 P: 39 K: 409 pH: 7.0

Target Population 25,000 plants/ac
 Harvest Date: November 5, 2010

Monthly Rainfall (in.)	May	June	July	Aug.	Sep.	Total
2010:	0.87	1.90	3.99	3.51	0.47	10.74
Long term mean:	2.76	2.92	2.85	2.55	1.97	13.05

Notes:

Rainfall was higher at trial location than reported at the Mesonet site near Boise City.
 Lodging in plots may have been due to areas of soil compaction.
 The trial was planted into marginal moisture which accounts for reduced stands.

Table 9. Results from OPREC limited irrigation grain sorghum performance trial, 2010.

Company Brand Name	Hybrid	Grain Yield bu/ac		Test weight lb/bu		Harvest Moisture	Plant Population plants/ac	Head Population heads/plant
		2010	Two-year	2010	Two-year			
Less than 60 days to mid-bloom								
DeKalb	DKS 37-07	161	160	60.0	59.8	12.4	50,900	1.13
DeKalb	Pulsar	148	148	58.4	58.1	12.4	42,500	1.34
DeKalb	DKS 28-05	144	143	56.9	57.2	11.6	59,100	1.20
Johnston Seed Co.	JS-207	138	142	56.3	56.4	11.6	51,500	1.10
DeKalb	DKS 29-28	127	126	56.4	56.8	11.8	50,300	1.25
Sorghum Partners Inc	SP3303	119	-----	58.4	-----	11.9	42,000	1.27
	Mean	140	144	57.7	57.7	11.9	49,400	1.21
	C.V.%	5.3	5.4	1.3	1.6	1.3	5.2	6.1
	L.S.D.	11	8	1.1	1.0	0.2	3,800	0.11

Company Brand Name	Hybrid	Grain Yield bu/ac		Test weight lb/bu		Harvest Moisture	Plant Population plants/ac	Head Population heads/plant
		2010	Two-year	2010	Two-year			
60 to 69 days to mid-bloom								
Sorghum Partners Inc	KS 585	145	158	60.3	59.4	12.5	40,900	1.45
DeKalb	DKS 44-20	157	156	60.8	59.6	12.4	64,100	1.11
Johnston Seed Co.	JS-222	157	156	59.5	58.9	12.4	56,100	1.01
Syngenta Seeds	5464	154	153	59.2	59.3	12.5	42,900	1.27
Syngenta Seeds	5556	141	151	58.7	58.3	12.3	48,900	1.17
Johnston Seed Co.	JS-056	139	151	58.9	58.9	12.2	55,200	1.11
Pioneer Hi-Bred Int.	86G32	138	150	58.1	58.0	12.0	45,800	1.30
DeKalb	DKS 36-06	152	148	58.1	58.3	12.8	49,400	1.14
Triumph Seed	TR 452	145	148	59.0	58.7	12.2	47,200	1.12
Syngenta Seeds	5613	137	146	58.8	58.7	12.0	51,000	1.11
Johnston Seed Co.	JS-524	133	146	57.3	56.8	12.2	45,500	1.22
Sorghum Partners Inc	NK5418	142	145	58.5	57.7	12.2	49,800	1.30
Syngenta Seeds	H-486	140	138	58.2	57.8	12.5	44,800	1.16
Johnston Seed Co.	JS-012	131	137	58.0	57.8	11.9	39,400	1.30
Pioneer Hi-Bred Int.	87P06	121	130	57.7	58.2	11.9	49,400	1.46
Triumph Seed	TRX 84732	155	-----	58.8	-----	13.0	39,400	1.48
Sorghum Partners Inc	X449	151	-----	60.5	-----	12.9	52,300	1.17
Pioneer Hi-Bred Int.	85G01	142	-----	59.5	-----	11.8	54,200	1.08
Sorghum Partners Inc	NK4420	139	-----	58.3	-----	12.6	55,300	1.19
Syngenta Seeds	5745	138	-----	57.2	-----	12.2	48,400	1.22
	Mean	143	148	58.7	58.4	12.3	49,000	1.22
	C.V.%	5.8	6.9	1.2	2.2	1.9	9.5	11.40
	L.S.D.	12	10	1.0	1.3	0.3	6,600	0.20

Table 9. Continued.

Company Brand Name	Hybrid	Grain Yield			Test weight			Harvest Moisture	Plant Population plants/ac	Head Population heads/plant
		2010	Two-year	Three-year	2010	Two-year	Three-year			
70 days and greater to mid-bloom										
DEKALB	DKS 53-67	147	150	141	58.4	59.2	58.3	13.8	42,300	1.31
DEKALB	DKS 54-03	152	150	140	57.4	57.3	56.9	12.6	50,200	1.01
DEKALB	DKS 54-00	145	144	133	56.3	57.5	56.9	13.3	43,900	1.09
Sorghum Partners Inc	NK6638	136	137	128	57.8	58.2	57.9	12.2	49,400	1.13
Pioneer Hi-Bred Int.	84G62	159	156	-----	58.5	58.7	-----	12.6	46,700	1.16
Pioneer Hi-Bred Int.	84P74	133	138	-----	58.4	58.1	-----	13.5	46,100	1.01
DeKalb	DKS 49-45	150	-----	-----	57.7	-----	-----	12.4	50,500	1.05
Pioneer Hi-Bred Int.	85Y40	147	-----	-----	59.1	-----	-----	12.5	47,500	1.10
Sorghum Partners Inc	NK 7633	145	-----	-----	57.6	-----	-----	12.8	43,700	1.24
Triumph Seed	TRX 05631	132	-----	-----	55.2	-----	-----	12.7	38,200	1.08
Mean		145	146	135	57.6	58.2	57.5	12.8	45800	1.1
C.V.%		6.9	6.5	7.2	1.7	2.4	2.7	3.6	12.9	10.4
L.S.D.		14	10	8	1.5	NS	1.3	0.7	NS	0.17

Cooperator: OPREC

Strip-till following wheat and double crop sunflower in 2009

Herbicide: Cinch ATZ Lite 2 qts/ac (Preemergence)

Seeding rate 64,500 plants/ac

Planting Date: June 7, 2010

Soil Series: Richfield Clay Loam

Soil Test: N: 36 P: 7 K: 1,082 pH: 7.9

Fertilizer: N: 150 lbs N and 50 lbs P2O5 with strip-till + 5 gal/ac 10-34-0 with planter

Target Population: 50,000 plants/ac

Harvest Date: November 2, 2010

Monthly Rainfall (in.)	May	June	July	Aug.	Sep.	Total
2010:	2.64	3.16	1.22	5.42	0.20	12.64
Long term mean:	3.25	2.86	2.58	2.28	1.77	12.74

----- Irrigation (in.) -----

Jun.	Jul.	Aug.	Sept.	Oct
1.3	1.3	1.3	2.6	1.3

Notes:

Rainfall was received in very timely manner when irrigation was not scheduled. There was a 68 bu/ac yield difference between hybrids entered in both dry-land and irrigated which equals 8.7 bushels per inch of irrigation.

Table 10. Results from OPREC dry-land grain sorghum performance trial, 2010.

Company Brand Name	Hybrid	Grain Yield bu/ac		Test weight lb/bu		Harvest Moisture	Plant Population plants/ac	Head Population heads/plant
		2010	Two-year	2010	Two-year			
Less than 60 days to mid-bloom								
DeKalb	DKS 37-07	86	89	55.9	57.1	12.9	26,700	1.40
DeKalb	DKS 28-05	71	80	56.4	56.9	11.4	24,100	1.61
DeKalb	DKS 29-28	73	76	56.3	56.4	12.2	26,700	1.49
DeKalb	Pulsar	72	75	56.2	56.4	12.3	21,400	1.74
Johnston Seed Co.	JS-207	74	71	54.9	55.9	11.8	22,400	1.77
Sorghum Partners Inc	SP3303	56	-----	55.6	-----	11.5	23,200	1.39
Mean		72	78	55.8	56.5	12.0	24,100	1.57
C.V.%		14.3	12.5	2.2	3.4	3.3	4.9	9.9
L.S.D.		16	10	NS	NS	0.6	1,800	0.23

Company Brand Name	Hybrid	Grain Yield bu/ac		Test weight lb/bu		Harvest Moisture	Plant Population plants/ac	Head Population heads/plant
		2010	Two-year	2010	Two-year			
60 to 69 days to mid-bloom								
DeKalb	DKS 44-20	96	89	57.8	58.0	12.7	23,400	1.73
DeKalb	DKS 36-06	78	81	57.3	56.8	12.0	22,700	1.58
Pioneer Hi-Bred Int.	87P06	73	78	56.4	56.6	12.0	23,000	1.28
Johnston Seed Co.	JS-524	75	76	56.7	56.3	12.5	27,200	1.07
Sorghum Partners Inc	NK5418	64	76	58.1	57.7	11.2	20,000	1.51
Pioneer Hi-Bred Int.	86G32	70	75	57.0	57.1	12.2	18,700	1.71
Sorghum Partners Inc	KS 585	72	75	57.8	57.9	12.5	23,000	1.44
Syngenta Seeds	5613	66	72	56.6	57.5	12.1	23,600	1.42
Syngenta Seeds	5556	68	72	57.1	57.4	11.9	20,100	1.62
Johnston Seed Co.	JS-056	67	72	58.4	57.8	11.9	16,400	1.88
Syngenta Seeds	H-486	78	71	56.8	54.9	13.0	27,400	1.21
Johnston Seed Co.	JS 222	67	71	57.1	56.9	12.2	21,000	1.49
Syngenta Seeds	5464	67	70	56.7	56.5	12.0	23,400	1.40
Johnston Seed Co.	JS-012	65	66	56.0	56.3	11.7	22,600	1.62
Sorghum Partners Inc	NK4420	80	-----	58.2	-----	12.0	22,000	1.69
Sorghum Partners Inc	X449	76	-----	56.8	-----	11.7	24,700	1.37
Triumph Seed	TRX 84732	69	-----	57.0	-----	12.4	20,500	1.81
Pioneer Hi-Bred Int.	85G01	67	-----	56.9	-----	11.7	19,000	1.65
Syngenta Seeds	5745	66	-----	56.6	-----	12.0	23,100	1.40
Triumph Seed	TR 452	60	-----	56.7	-----	12.4	24,000	1.32
Mean		71	74	57.1	57.0	12.1	22,300	1.51
C.V.%		15.3	13.2	2.3	2.8	8.3	12.1	17.40
L.S.D.		15	9.7	NS	1.6	NS	3,800	0.37

Table 10. Continued.

Company Brand Name	Hybrid	Grain Yield Bu/ac 2010	Test weight Lb/bu 2010	Harvest Moisture	Plant Population plants/ac	Head Population heads/plant
70 days and greater to mid-bloom						
Pioneer Hi-Bred Int.	85Y40	89	58.2	11.7	19,500	1.54
DeKalb	DKS 49-45	88	57.1	11.3	16,500	1.86
Triumph Seed	TRX 05631	83	58.5	11.6	20,000	1.59
Sorghum Partners Inc	NK 7633	82	56.3	11.3	18,700	1.62
Sorghum Partners Inc	NK6638	76	56.5	11.9	17,800	1.86
	Mean	84	57.3	11.5	18,500	1.69
	C.V.%	10.8	3.5	3.2	13.6	19.9
	L.S.D.	NS	NS	NS	NS	NS

Cooperator: OPREC
 No-till tillage Practices: Wheat in 2009
 Fertilizer: N: 50 lbs N + 5 gal/ac 10-34-0 with planter
 Seeding rate 27,400 plants/ac
 Planting Date: June 2, 2010
 Herbicide: Cinch ATZ Lite 2.0 qts/ac (Preemergence)

Soil Series: Richfield Clay Loam
 Soil Test: N: 67 P: 14 K: 1277 pH: 7.6

Target Population 25,000 plants/ac
 Harvest Date: October 29, 2010

Monthly Rainfall (in.)	May	June	July	Aug.	Sep.	Total
2010:	2.64	3.16	1.22	5.42	0.20	12.64
Long term mean:	3.25	2.86	2.58	2.28	1.77	12.74

Notes:

Due to planter error the early hybrids were replanted 2 weeks after the date above.

Table 11. Results from Tipton grain sorghum performance trial, 2010.

Company Brand Name	Hybrid	Grain Yield Bu/ac 2010	Test weight Lb/bu 2010	Harvest Moisture	Plant Population plants/ac	Head Population heads/plant
Less than 60 days to mid-bloom						
DeKalb	Pulsar	91	57.8	12.5	39,900	1.89
DeKalb	DKS 37-07	89	59.1	12.5	49,700	1.36
DeKalb	DKS 28-05	80	55.1	11.7	46,300	1.76
Johnston Seed Co.	JS-207	74	54.4	11.8	42,000	1.86
DeKalb	DKS 29-28	69	55.1	11.5	45,300	1.58
	Mean	81	56.3	12.0	44,600	1.69
	C.V.%	6.7	1.2	3.2	8.2	11.1
	L.S.D.	10	0.7	NS	NS	NS

Company Brand Name	Hybrid	Grain Yield Bu/ac 2010	Test weight Lb/bu 2010	Harvest Moisture	Plant Population plants/ac	Head Population heads/plant
60 to 69 days to mid-bloom						
DeKalb	DKS 44-20	110	59.1	13.3	55,000	1.34
Syngenta Seeds	5613	110	57.2	13.2	45,300	1.41
Pioneer Hi-Bred Int.	86G32	109	57.1	12.4	43,600	1.57
Johnston Seed Co.	JS-222	106	57.9	12.7	45,200	1.39
Syngenta Seeds	5464	104	57.5	13.0	35,400	1.63
Triumph Seed	TRX 84732	99	56.4	12.3	36,900	1.62
Syngenta Seeds	5556	94	58.1	13.1	47,300	1.35
Syngenta Seeds	5745	92	57.9	13.0	42,400	1.52
Channel Bio LLC	5B90	91	58.0	12.1	50,100	1.47
Johnston Seed Co.	JS-012	91	57.5	11.8	36,400	1.70
Pioneer Hi-Bred Int.	87P06	91	58.5	12.5	50,100	1.50
Pioneer Hi-Bred Int.	85G01	90	56.6	12.3	46,500	1.37
Sorghum Partners Inc	X449	90	58.9	13.2	43,700	1.62
Channel Bio LLC	7B11	88	58.6	12.7	43,600	1.41
Johnston Seed Co.	JS-056	87	56.7	12.6	42,800	1.62
Sorghum Partners Inc	KS 585	85	59.4	12.2	42,000	1.61
DeKalb	DKS 36-06	84	59.2	13.2	44,000	1.42
Syngenta Seeds	H-486	83	57.8	12.5	46,500	1.18
Triumph Seed	TR 452	80	57.3	12.3	43,200	1.41
Sorghum Partners Inc	NK5418	80	55.8	12.1	45,400	1.69
Johnston Seed Co.	JS-524	65	56.7	12.0	38,000	1.49
	Mean	92	57.7	12.6	44,000	1.49
	C.V.%	15.2	1.7	3.8	11.6	11.6
	L.S.D.	23	1.6	0.8	8,400	NS

Table 11. Continued.

Company Brand Name	Hybrid	Grain Yield Bu/ac 2010	Test weight Lb/bu 2010	Harvest Moisture	Plant Population plants/ac	Head Population heads/plant
70 days and greater to mid-bloom						
Pioneer Hi-Bred Int.	85Y40	110	57.3	12.4	48,800	1.42
DeKalb	DKS 49-45	105	58.6	12.0	54,300	1.26
Sorghum Partners Inc	NK6638	103	57.0	12.1	52,000	1.33
Sorghum Partners Inc	NK 7633	96	57.7	12.5	39,100	1.62
Triumph Seed	TRX 05631	80	56.4	12.2	40,500	1.25
	Mean	99	57.4	12.3	46,900	1.38
	C.V.%	18.6	1.1	1.6	9.5	7.3
	L.S.D.	NS	1.2	NS	8,400	0.19

Cooperator: Southwest Research and Extension Center
 Conventional Tillage Practices: Sorghum-fallow-sorghum rotation
 Fertilizer: N: 80 lbs/ac P: 20 lbs P₂O₅ K: 0
 Seeding rate: 56,000 seeds/ac
 Planting Date: April 26, 2010
 Herbicide: 2 qt/ac Cinch ATZ Lite Preemergence

Soil Series: Tipton Silt Loam
 Soil Test: N: 111 P: 84 K: 634 pH: 6.6
 First hybrid headed out June 14
 Target population 45,000 plants/ac
 Harvest Date: August 20, 2010

Monthly Rainfall (in.)		Apr.	May	June	July	Aug.	Total
	2010:	2.79	1.34	2.07	9.93	1.10	17.23
	Long term mean:	2.30	4.30	3.45	2.08	2.71	14.84

Notes:

The 9.93 inches of rainfall in July (57 %) was received after all hybrids were headed out.