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The relative performance of grain sorghum hybrids grown under similar environmental conditions is evaluated in this report for the 1974 season. Performance records of the hybrids harvested in 1974 and available two-, three-, four-, and five-year averages are presented. The trials were conducted under the supervision of the Crop Performance Testing Activity, Agricultural Experiment Station, South Dakota State University, Brookings.

Location of the 1974 Trials

For adequate performance evaluation, the various entries must be grown under similar environmental conditions. Crop adaptation areas in which the trials are conducted are based upon soil type, elevation, temperature, rainfall and other physical differences. The exact location of the trials and dates of seeding and harvesting are included in Table 1. A new trial was initiated in northeast Aurora County in 1974. The trial grown in Lyman County at the former Presho site was moved to the Kennebec area. Data from soil samples taken at the various sites at time of seeding and cultural practices are shown in Table 2.

Weather and Climatic Conditions

Climatic data for the 1974 grain sorghum year, May-September, are based upon U.S. Monthly Climatological Data. Weather information from the immediate Geddes and Letcher sites is not available but they were hot and dry much of the summer. Much of the May precipitation had occurred before seeding of grain sorghums had begun. Excessive amounts at Highmore delayed seeding into June. Precipitation after that was limited and weather continued hot and dry in central South Dakota. Yields were well below average in all areas except Redfield which was irrigated. The Highmore plot was not harvested because of nearly total loss to sparrows.

Drought injury was increased because of long periods of high temperatures of 90 degrees or more in July and early August (Table 3). In areas where precipitation had been limited stresses became very severe and some plants failed to head. Pollination and seed set were also poor and variability was very high within

The assistance of the following individuals is acknowledged: A. O. Lunden and Q. S. Kingsley of the Plant Science Department; Station personnel Burton Lawrensen, Herb Lund, Mike Volek and Ray Ward; and farmer-cooperators William Fijala, Harlan Halverson and Oscar Thompson.

TABLE 1. LOCATION OF TRIALS AND DATES OF SEEDING AND HARVESTING OF GRAIN SORGHUM PERFORMANCE TRIALS, SOUTH DAKOTA, 1974

County	Location and post office	Date Seeded	Date Harvested	Row Spacing
Aurora	Oscar Thompson Farm, Letcher	May 28	Sept. 20	36"
Brookings	Plant Science Farm, Brookings	May 28	Sept. 23	36"
Charles Mix	William Fijala Farm, Geddes	May 20	Sept. 24	40"
Clay	Southeast Experiment Farm, Beresford	May 22	Sept. 26	30"
Hyde	Central Substation, Highmore	June 5	not harv.	36"
Lyman	Harlan Halverson Farm, Kennebec	May 29	Sept. 26	40"
Spink	James Valley Res. Center, Redfield	May 29	Sept. 27	36"

plots and between replications of the same variety. Some variability also resulted from sparrow damage during the milk and soft dough stages of development. Bird damage was extensive also in commercial grain sorghum in South Dakota in 1974.

A killing fall frost (28^{o}) was recorded in the eastern part of the state on September 3 causing further damage to plants already suffering from midsummer heat and drouth stress or, strangely, below normal monthly mean temperatures. Lodging was not a serious problem at any location in spite of the severe stresses that could weaken the plants.

The delays caused by either periods of hot, dry weather of below normal temperatures did not seem to affect the quality of many hybrids as they apparently reached physiological maturity. Most test weights were normal.

Hybrid Entry Procedure

Grain sorghums offered for sale in South Dakota or being produced for distribution in 1975 were eligible for entry. A closed-pedigree hybrid was entered by the permanent name and number under which it was sold by the parent company only. All entries maintained minumum laboratory germination of 80% as required by South Dakota Certification Standards. A nominal fee was charged for each entry in each area except for grain sorghum entries developed by State and Federal Experiment Stations and entered by the South Dakota Agricultural Experiment Station.

TABLE 2. SOIL CLASSIFICATION AND LABORATORY ANALYSIS OF SOIL SAMPLES TAKEN PRIOR TO SEEDING, AND FIELD PREPARATION FOR THE 1974 CROP YEAR

County and crop adaptation area	Soil classification	Laboratory analysis				Field preparation
		Org. mat. %	P lb/A	K lb/A	pH	Method
Lyman, B3	Pierre clay	4.6	19	1000	7.5	Fallow, disked
Aurora, C1	Hou.-ProsperSiCl	2.9	42	830	7.0	Disked sudan stubble
Charles Mix, C2	Highmore SiCl	4.3	140	1000	6.6	Fall plowed, manure
Clay, E	Egan SiCl	2.4	53	1000	6.3	Bean ground, plowed&disked

TABLE 3. TEMPERATURE AND PRECIPITATION DATA FOR THE 1974 GRAIN SORGHUM GROWING SEASON IN SOUTH DAKOTA

Location and District	Month	Temperature, degrees F. Mean av.	Departure from normal	Av. departure	Days 90°+	Precipitation, inches Month total	Departure from normal	Total departure
Highmore[a]	May	56.2	-0.3			6.70	4.15	
1W	June	67.3	1.5		9	1.27	-2.70	
	July	80.7	7.8		25	1.29	-1.25	
B2	Aug.	70.8	-1.3		12	0.36	-1.99	
	Sept.	60.8	-0.3	1.5	6	0.42	-1.19	-2.98
	First freeze Sept. 28 - 28°					10.04		
Kennebec	May	57.5	-0.6			4.55	1.86	
	June	68.3	0.8		9	1.74	-1.79	
B3	July	81.0	6.1		28	3.62	1.57	
	Aug.	71.6	-2.3		12	0.44	-1.90	
	Sept.	60.8	-2.0	0.4	8	0.36	-1.16	-1.42
	First freeze Sept. 13 - 29°					10.71		
Redfield	May	53.9	b			4.88	b	
6E	June	65.2			3	1.22		
	July	77.9			23	2.68		
C1	Aug.	68.2			7	0.91		
	Sept.	57.8			3	0.00		
	First freeze Sept. 3 - 28°					9.69		
Brookings	May	52.2	-4.0			4.46	1.26	
2 NE	June	63.5	-2.2		3	1.57	-3.01	
	July	74.4	3.3		13	1.96	-0.88	
D3	Aug.	65.0	-4.6		1	2.97	0.11	
	Sept.	54.4	-4.6	-2.4	1	0.09	-2.15	-4.67
	First freeze Sept. 3 - 25°					11.05		
Centerville	May	56.1	-4.6			3.77	0.39	
6 SE	June	65.7	-4.5		5	3.10	0.00	
	July	76.8	M		19	1.76	-1.35	
E	Aug.	66.5	-7.4		4	2.46	-0.58	
	Sept.	57.1	-6.6		3	0.94	-1.74	-3.28
	First freeze Sept. 3 - 29°					12.13		

a - Based upon reports of Monthly Climatological Data, National Weather Service.
b - Departures are figured from 30 years data. This station has not been in operation for that long a period.

Experimental Procedure

Each trial consisted of four or five replications. Plots of individual entries were randomly located within each replication. All trials were seeded two rows at a time, with cone-planters mounted above flexi-planter units. A recommended herbicide for control of grassy weeds and insecticide for greenbug control were banded over the row at time of seeding. The various width of row spacings used are found in Table 1. The plots were two rows wide; plots lengths were dependent upon the area available at the various locations.

The harvested grain was taken from two 10-foot sections of each row in each individual plot. The heads were bagged as harvested, tagged and tied, returned to Brookings for drying and remained there for several weeks. Yields were calculated on the basis of pounds per acre (multiply by 1.121 for kg/ha). Depending upon location, either three or four replications were harvested for yield determination and one replication was left for observational purposes.

Moisture determinations made at time of normal first-frost dates are generally more reliable and informative than determinations made at harvest time. Generally, these figures and test weight of the harvested grain indicated more realistically the maturity of the grain. Moisture percentages given for 1974 are somewhat high since stress during the season delayed growth and maturity.

Moisture samples were taken from all available observation plots at all locations during the period of September 18-20. Ten to twelve heads, adequate for a 400-500 gram grain sample, were cut from each entry, placed in a polyethylene bag, tagged and sealed tightly. The samples were threshed and cleaned, and moisture percentages were determined with an electronic moisture meter. The upper limit of the meter is 35 percent. Material above this level is indicated at 35+ in the tables and normally would indicate hybrids of late maturity for that area.

The extended periods of stress delayed heading and maturity of some hybrids. Some full season hybrids failed to head at all and harvest was questionable, especially if they were fields in a farm operation. The yields at Letcher, Geddes and Kennebec showed wide variability as a result of the delays in heading.

The trials at Redfield were irrigated. Water was applied by gravity method three times for a total of 12.3 inches of supplemental water.

Measurements of Performance

Variations in soil fertility, slope or stand may cause varieties of equal potential to yield differently. Mathematical determinations were made to determine if yield differences were caused by variations in environment or were true varietal differences. Small yield differences have no significance.

Discussion of Results

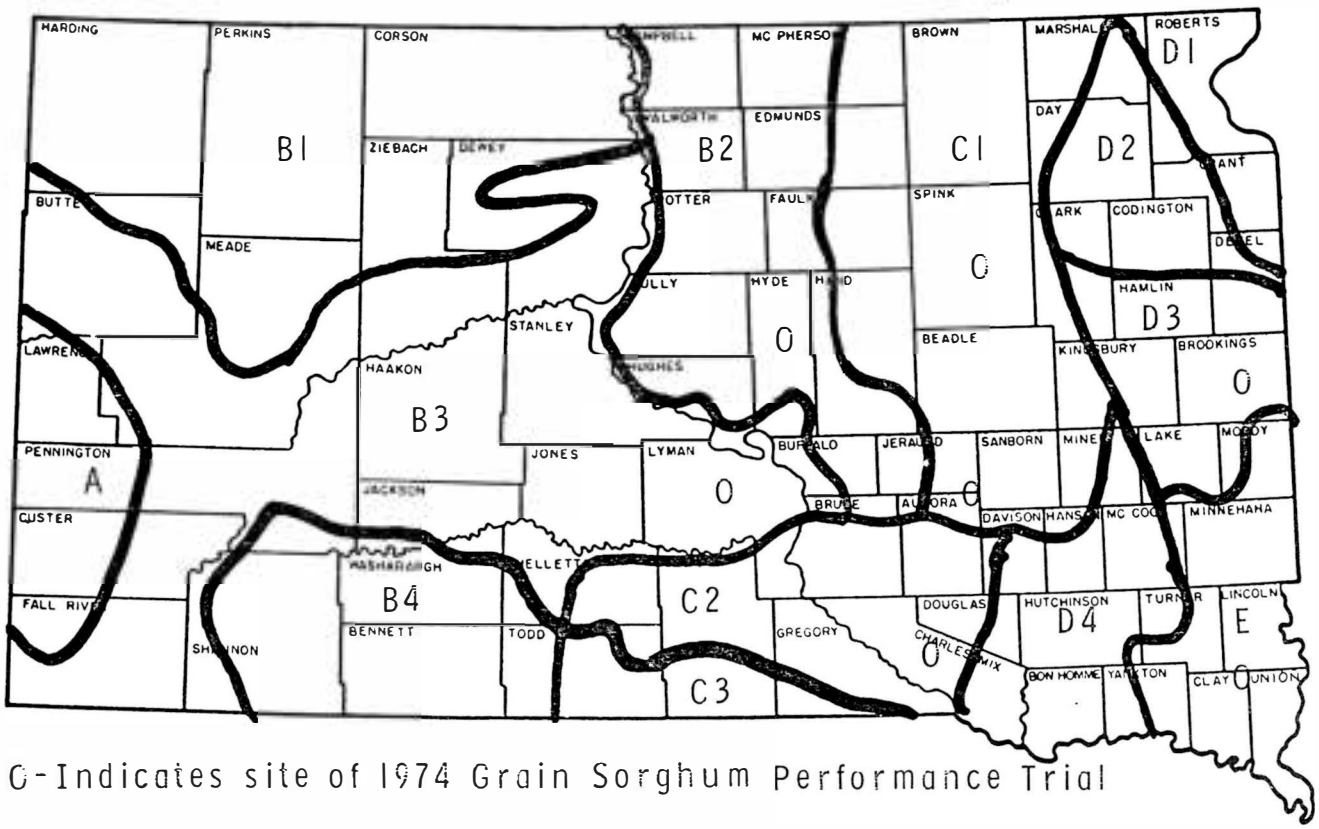
Grain sorghums are grown extensively in south central South Dakota and in varying amounts elsewhere around the state where it is too hot and dry for corn production. In 1974, moisture was limited and temperatures ranged from well below normal to long periods of high temperatures with high wind velocities. Precipitation was excessive at one location in mid-May delaying grain sorghum seeding until early June. At most sites in the major production areas the last precipitation of benefit to the 1974 seeding occurred in early June.

Sorghum as a crop of tropical origin can withstand periods of high temperatures without a lot of moisture. However, the 1974 climatic data show that precipitation was below normal at all sites from June through September. More important, records were also set for consecutive days with temperatures of 90 degrees or more at most trial sites and this type of punishing stress together with little moisture hurt even the earliest adapted hybrids.

Good to exceptional yields were obtained where moisture was somewhat favorable. Near normal precipitation occurred during June at Beresford and yields were good for adapted material. The benefit of supplemental irrigations (3) is evident in the exceptional yields from Redfield. Even at this site quite early and late entries did not yield with the adapted hybrids.

A problem with some entries this year was bird damage to developing heads as the grain was in the milk and soft dough stage. Greenbugs became a slight problem at Letcher and Geddes. The insecticide used, though recommended at the outset, was not as effective as in prior years and will not be used in the future. Even though the plants had been under stress most of the year, lodging was not the problem encountered in similar situations in prior years.

CROP ADAPTATION AREAS



C-Indicates site of 1974 Grain Sorghum Performance Trial

TABLE 4. 1974 GRAIN SORGHUM PERFORMANCE TRIAL, AREA C1, OSCAR THOMPSON FARM, LETCHER, AURORA COUNTY

Brand & Variety	Yield, lb/A	Test Wt. lb/B	Height, inches
Northrup-King NK 180	1500	54	31
DeKalb A-26	1435	52	21
Pride P550 BR	1425	55	35
Pride P570	1320	55	30
SDAES RS 506	1130	55	31
SDAES SD 451	1120	55	34
Pioneer 866	1080	48	33
Northrup-King NK 222	1055	49	30
Pride P500 A	1030	56	30
ACCO R 920	990	56	30
SDAES RS 610	990	50	30
DeKalb C-42A	940	51	27
SDAES SD 106	935	53	29
DeKalb B-35R	890	51	34
Pioneer 878	835	54	30
Frontier Super 400A	830	51	30
Funk's G-393	720	52	30
Funk's G-399	715	51	30
Frontier 385	705	46	27
Northrup-King NK 233A	700	50	29
Northrup-King NK 180A	655	54	26
Pioneer 8681	645	50	24
SDAES SD 104	530	53	31
Frontier 389	520	48	30
Funk's G-251	470	55	30
SDAES SD 503	385	44	36
Funk's HW 3075 Ex	350	48	28
Pioneer 894	215	50	28
Northrup-King NK 129	175	46	26
Mean	840		
CV = 44.4% LSD (.05)	605		

TABLE 5. 1974 GRAIN SORGHUM PERFORMANCE TRIAL, AREA B3, HARLAN HALVERSON FARM, KENNEBEC, LYMAN COUNTY

Brand & Variety	Yield, lb/A	Test Wt. lb/B	Height, inches	Percent Moisture, 9/19/74
Pioneer 894	1790	57	27	13.5
ACCO R 1010	1785	58	30	20.7
Pride P500 A	1765	57	29	15.5
ACCO R 920	1610	55	30	12.6
SDAES SD 104	1500	56	32	16.7
Northrup-King NK 180A	1450	56	28	20.4
DeKalb A-25	1420	53	30	15.0
SDAES SD 503	1400	55	30	20.9
SDAES RS 506	1390	56	33	17.9
DeKalb A-26	1360	53	22	29.8
SDAES SD 106	1335	52	29	22.7
Funk's G-251	1240	56	25	14.9
Northrup-King NK MM52	1225	56	25	23.3
Pioneer 878	1200	56	25	35.+
SDAES SD 451	1185	56	31	17.4
Frontier 389	990	54	28	30.5
Northrup-King NK 121	945	55	27	26.7
Frontier 350	925	55	29	28.6
Northrup-King NK 129	925	56	25	25.4
DeKalb B-35R	810	57	25	35.+
Northrup-King NK 180	770	55	26	35.+
Pride P550 BR	755	55	27	28.0
Funk's G-393	690	55	25	29.9
Pioneer 866	665	54	26	35.+
SDAES RS 610	660	53	23	35.+
ACCO R 1014	580	55	25	35.+
Frontier 385	575	53	25	30.9
DeKalb C-42A	530	54	23	30.8
Pioneer 8681	475	51	25	35.+
Frontier Super 400A	420	54	25	35.+
ACCO R 1019	390	40	24	35.+
Funk's G-399	145	46	25	35.+
Funk's HW 3075 Ex[a]	--	--	26	--
Mean	1030			

CV = 38.0% LSD (.05) 633

a - It was too late to head and produce any grain.

TABLE 6. TWO-, THREE-, FOUR-, AND FIVE-YEAR AVERAGE YIELDS OF GRAIN SORGHUM HYBRIDS ENTERED IN LYMAN COUNTY, 1970-1974

Brand & Variety	Average yield, pounds per acre			
	1970-74	1971-74	1972-74	1973-74
ACCO R 920	2870	2885	3085	2400
ACCO R 1010	3250	3305	3530	2975
ACCO R 1014				2300
ACCO R 1019	2730	2755	2795	2995
DeKalb A-25				2605
DeKalb A-26			2975	2675
DeKalb C-42A		2950	3050	2275
Frontier 350				2280
Frontier 385				1995
Frontier 389				2290
Frontier Super 400A	3015	3030	3045	2220
Northrup-King NK MM52				2395
Northrup-King NK 121		3070	3220	2555
Northrup-King NK 129				2300
Northrup-King NK 180		2960	3145	2435
Pioneer 866		2820	2970	2390
Pioneer 878		2935	3085	2305
Pioneer 894				2565
Pioneer 8681				2015
Pride P500 A	3175	3255	3495	2960
Pride P550 BR	3065	3010	3100	2225
SDAES SD 104				2210
SDAES SD 106				2190
SDAES SD 451	2535	2535	2710	2100
SDAES SD 503	3070	3115	3310	2670
SDAES RS 506	3325	3105	3310	2560
SDAES RS 610	2840	2870	2940	2295

TABLE 7. 1974 GRAIN SORGHUM PERFORMANCE TRIAL, AREA C1, IRRIGATED, JAMES VALLEY AGRICULTURAL RESEARCH AND EXTENSION CENTER, REDFIELD

Brand & Variety	Yield, lb/A	Test Wt. lb/B	Height, inches	Date Headed	Percent Moisture 9/17/74
Pride P500 A	6620	58	48	7/28	29.3
Northrup-King NK 129	6560	58	52	8/1	35.+
Northrup-King NK 180	6515	57	50	8/4	35.+
Warner W-561	6470	53	49	8/8	35.+
SDAES RS 506	6315	57	55	7/30	35.+
ACCO R 920	6225	57	48	7/29	31.1
Northrup-King NK 233A	6220	59	50	8/4	35.+
Northrup-King NK 180A	5960	57	49	8/1	34.3
Pioneer 866	5925	55	59	8/12	35.+
Pioneer 890	5895	58	46	7/30	32.6
Funk's G-251	5840	60	40	7/28	32.7
Pride P550 BR	5810	58	47	8/2	35.+
DeKalb C-42A	5715	54	45	8/7	35.+
DeKalb B-35R	5640	55	50	8/4	35.+
ACCO R 1014	5535	55	48	8/8	35.+
Pioneer 894	5490	59	40	7/30	31.5
Funk's G-393	5490	57	47	8/9	35.+
Warner W-55	5350	54	47	8/11	35.+
SDAES RS 610	5315	54	51	8/7	35.+
SDAES SD 503	5070	56	55	8/1	34.8
Funk's G-399	4915	55	46	8/13	35.+
SDAES SD 106	4655	58	40	7/24	28.0
ACCO R 1019	4620	54	46	8/13	35.+
Funk's HW 3075 Ex	3715	49	39	8/18	35.+
Mean	5660				
CV = 12.0% LSD (.05)	1110				

TABLE 8. 1974 GRAIN SORGHUM PERFORMANCE TRIAL, AREA C2, WILLIAM FIJALA FARM, GEDDES, CHARLES MIX COUNTY

Brand & Variety	Yield, lb/A	Test Wt. lb/B	Height, inches	Percent Moisture, 9/19/74
SDAES RS 506	3135	58	36	12.6
Pioneer 883	2990	58	31	14.9
SDAES SD 503	2955	59	35	11.9
Funk's G-251	2850	59	27	11.1
Frontier Super 400A	2600	57	28	16.6
SDAES SD 451	2515	57	33	12.2
Northrup-King NK 233A	2425	60	28	12.3
SDAES RS 610	2380	58	31	15.9
Northrup-King NK 180	2330	58	31	18.5
Pioneer 866	2285	57	34	18.4
Pride P550 BR	2100	58	31	11.1
Pride P570	2070	59	30	17.8
Frontier 385	2025	58	25	14.4
DeKalb B-35R	1885	58	29	13.9
Funk's G-393	1760	59	31	18.5
DeKalb C-42A	1540	52	28	16.5
Frontier 389	1480	58	30	24.4
Pioneer 8681	1470	52	30	30.2
ACCO R 1029	1455	53	30	26.9
Funk's G-399	1370	58	30	18.8
ACCO R 1014	1250	56	29	14.9
Northrup-King NK 222	1035	57	28	19.8
Pride P800 Y	940	56	27	13.2
ACCO R 1019	885	47	29	35.+
Funk's G-490	735	49	26	24.5
Funk's HW 3075 Ex	650	51	28	23.4
SDAES NE 635	245	41	31	35.+
Mean	1845			
CV = 28.5% LSD (.05)	739			

TABLE 9. TWO-, THREE-, FOUR-, AND FIVE-YEAR AVERAGE YIELDS OF GRAIN SORGHUM HYBRIDS ENTERED AT GEDDES, 1970-1974

Brand & Variety	Average yield, pounds per acre			
	1970-74	1971-74	1972-74	1973-74
ACCO R 1014				2425
ACCO R 1019	3125	3515	3880	2615
DeKalb C-42A		4415	4575	3155
Frontier 385				2780
Frontier 389				2855
Frontier Super 400A	3920	4235	4570	3970
Northrup-King NK 180		4015	4380	3100
Northrup-King NK 222	3115	3405	3740	2340
Pioneer 866	3905	4240	3715	3195
Pioneer 8681				2725
Pioneer 883	3620	3830	4375	3635
Pride P550 BR	3265	3440	3810	2995
Pride P570				3525
Pride P800 Y			3555	2450
SDAES SD 451		3720	4135	3120
SDAES SD 503	3365	3615	4250	3660
SDAES RS 506	3745	3995	4390	3600
SDAES RS 610	3455	3680	4090	3445
SDAES NE 635			3950	2475

TABLE 10. TWO-, THREE-, FOUR-, AND FIVE-YEAR AVERAGE YIELDS OF GRAIN SORGHUM HYBRIDS ENTERED AT REDFIELD, 1970-1974

Brand & Variety	Average yield, pounds per acre			
	1970-74	1971-74	1972-74	1973-74
ACCO R 920			4765	4485
ACCO R 1014				4240
ACCO R 1019	4830	4470	3995	3935
Funk's G-251				4155
Funk's G-393				4395
Funk's HW 3075 Ex				3510
Northrup-King NK 129				4970
Northrup-King NK 180			5580	5590
Northrup-King NK 233A				5345
Pioneer 866	5720	5325	4710	4860
Pioneer 894	4920	4690	4225	4040
SDAES SD 106				3560
SDAES SD 503	4550	4955	4355	4240
SDAES RS 506	5935	5595	4920	4660
SDAES RS 610	5425	5050	4450	4855

TABLE 11. 1974 GRAIN SORGHUM PERFORMANCE TRIAL, AREA D3, PLANT SCIENCE FARM, BROOKINGS

Brand & Variety	Yield, lb/A	Test Wt. lb/B	Height, inches	Date Headed	Percent Moisture 9/18/74
Northrup-King NK MM52	2705	54	38	7/21	21.4
SDAES SD 106	2260	53	38	7/22	17.8
Northrup-King NK 180A	2230	45	45	7/29	35.+
Northrup-King NK 121	2185	52	44	7/25	20.6
ACCO R 920	2020	52	45	7/23	18.5
SDAES SD 503	1755	44	50	7/26	18.8
Pioneer 894	1740	50	38	7/25	28.8
Pioneer 8901	1735	45	41	7/25	35.+
SDAES SD 104	1720	52	39	7/22	27.6
Northrup-King NK 129	1650	46	45	7/28	26.5
ACCO R 1014	1495	37	44	8/3	35.+
Funk's G-393	1490	42	45	8/1	28.3
Funk's G-251	1385	53	39	7/26	16.9
Northrup-King NK 180	1385	36	46	8/1	35.+
SDAES SD 451	1335	48	47	7/27	23.7
SDAES RS 506	1285	47	49	7/27	28.5
Warner W-561	1215	35	45	8/3	35.+
Warner W-55	1015	35	38	8/4	35.+
Funk's HW 3075 Ex	625	34	40	8/8	35.+
Funk's G-399	610	34	44	8/5	35.+
ACCO R 1029	515	32	45	8/6	35.+
ACCO R 1019	410	28	44	8/9	35.+
Mean	1490				

CV = 30.6% LSD (.05) 745

TABLE 12. 1974 GRAIN SORGHUM PERFORMANCE TRIAL, AREA E, SOUTHEAST EXPERIMENT FARM, BERESFORD, CLAY COUNTY

Brand & Variety	Yield, lb/A	Test Wt. lb/B	Height, inches	Date Headed	Percent Moisture 9/20/74
NC+ 55X	5110	61	39	7/24	23.0
Warner W-561	4975	57	35	7/28	22.0
ACCO R 1019	4965	57	39	7/31	35.+
SDAES RS 506	4850	58	43	7/26	20.3
SDAES RS 610	4840	58	38	7/26	23.4
Northrup-King NK 180	4665	59	37	7/23	23.5
DeKalb B-35R	4575	59	37	7/27	30.5
Northrup-King NK 265	4570	60	36	7/28	34.4
DeKalb C-42A	4570	58	36	7/29	31.8
Frontier Super 400A	4515	57	35	7/27	25.6
NC+ 54X	4435	60	37	7/25	21.3
ACCO R 1014	4420	57	37	7/26	31.3
Funk's G-393	4380	60	38	7/26	28.1
Funk's G-251	4370	60	32	7/22	14.6
Pioneer 8681	4305	55	38	8/1	35.+
Warner W-55	4255	57	32	7/28	24.9
ACCO R 1029	4245	56	37	8/1	35.+
SDAES SD 451	4215	57	41	7/21	14.7
Pioneer 8600	4175	55	35	8/2	35.+
Northrup-King NK 222	4150	59	34	7/27	27.3
SDAES SD 503	4140	58	42	7/23	19.3
Funk's G-490	4065	55	36	8/1	35.+
SDAES SD 106	3855	55	35	7/21	15.5
Funk's G-399	3805	59	36	7/29	24.5
Funk's HW 3075 Ex	3790	59	35	7/31	35.+
Northrup-King NK 272	3120	53	39	8/6	35.+
Mean	4360				
CV = 8.8% LSD (.05)	625				

TABLE 13. TWO-, THREE-, FOUR-, AND FIVE-YEAR AVERAGE YIELDS OF GRAIN SORGHUM HYBRIDS ENTERED AT BROOKINGS, 1970-1974

Brand & Variety	Average yield, pounds per acre			
	1970-74	1971-74	1972-74	1973-74
ACCO R 920		4015	3735	3930
ACCO R 1019		2710	2195	2885
Funk's G-251				3180
Funk's G-399				2650
Funk's HW 3075 Ex				2935
Northrup-King NK MM52				4315
Northrup-King NK 121			3930	4085
Northrup-King NK 129				3850
Northrup-King NK 180			3500	3890
Pioneer 894	4125	3660	3395	3475
Pioneer 8901				3630
SDAES SD 104				3430
SDAES SD 106			3805	3855
SDAES SD 451	3780	3390	2915	3015
SDAES SD 503	3750	3515	3020	3410
SDAES RS 506	4355	4120	3500	3510

TABLE 14. TWO-, THREE-, FOUR-, AND FIVE-YEAR AVERAGE YIELDS OF GRAIN SORGHUM HYBRIDS ENTERED AT BERESFORD, 1970-1974

Brand & Variety	Average yield, pounds per acre			
	1970-74	1971-74	1972-74	1973-74
ACCO R 1014				4595
ACCO R 1019	5755	5855	5940	5205
ACCO R 1029				5055
DeKalb C-42A	5795	5880	6065	5600
Frontier Super 400A		5975	6035	5365
Northrup-King NK 180			5830	5065
Northrup-King NK 222	5595	5825	5725	4940
Northrup-King NK 265	6075	6080	6145	5055
Pioneer 8681				5010
SDAES SD 106				4325
SDAES SD 451				4720
SDAES SD 503	5405	5475	5365	4525
SDAES RS 506	5705	5925	5930	5140
SDAES RS 610	5620	5865	5885	5150

TABLE 15. ENTRIES SUBMITTED FOR THE 1974 GRAIN SORGHUM PERFORMANCE TRIALS AND TABLES WHERE RESULTS APPEAR

Company & Brand	Variety	Tables
DeKalb AgResearch, Inc.	A-25	5,6
Rt. 2, Box 113	A-26	4,5,6
Glenvil, NE	C-42A	4,5,6,7,8,9,12,14
"DeKalb"	B-35R	4,5,7,8,12
Frontier Hybrids, Inc.	350	5,6
Box 460	385	4,5,6,8,9
Hutchinson, KS	389	4,5,6,8,9
"Frontier"	Super 400A	4,5,6,8,9,12,14
NC+ Hybrids	54 X	12
RFD #1, Box 262	55 X	12
Hastings, NE		
Pioneer Seed Co.	866	4,5,6,7,8,9,10
1206 Mulberry St.	8600	12
Des Moines, IA	8681	4,5,6,8,9,12,14
"Pioneer"	878	4,5,6
	883	8,9
	890	7
	8901	11,13
	894	4,5,6,7,10,11,13
Pride Co., Inc.	P500 A	4,5,6,7
Glen Haven, WI	P550 BR	4,5,6,7,8,9
"Pride"	P570	4,8,9
	P800 Y	8,9
Geo. Warner Seed Co.		
Box 1448	W-55	7,11,12
Hereford, TX	W-561	7,11,12
"Warner"		
ACCO Seed Co.	R 920	4,5,6,7,10,11,13
Box 1630	R 1010	5,6
Plainview, TX	R 1014	5,6,7,8,9,10,11,12,14
"ACCO"	R 1019	5,6,7,8,9,10,11,12,13,14
	R 1029	8,11,12,14
Funks Seeds, Internat'l	G-251	4,5,7,8,10,11,12,13
1300 W. Washington St.	G-393	4,5,7,8,10,11,12
Bloomington, IL	G-399	4,5,7,8,11,12,13
"Funk's"	G-490	8,12
	HW3075 Ex	4,5,7,8,10,11,12,13
Northrup, King & Co.	NK 121	5,6,11,13
1500 Jackson St. NE	NK 129	4,5,6,7,10,11,13
Minneapolis, MN	NK 180	4,5,6,7,8,9,10,11,12,13,14
"NK"	NK 180A	4,5,7,11
	NK 222	4,8,9,12,14
	NK 233A	4,7,8,10
	NK 265	12,14
	NK 272	12
	NK MM52	5,6,11,13
Agricultural Experiment	SD 104	4,5,6,11,13
Station	SD 106	4,5,6,7,10,11,12,13,14
Plant Science Dept.	SD 451	4,5,6,8,9,11,12,13,14
SDSU	SD 503	4,5,6,7,8,9,10,11,12,13,14
Brookings, SD	RS 506	4,5,6,7,8,9,10,11,12,13,14
"SDAES"	RS 610	4,5,6,7,8,9,10,12,14
	NE 635	8,9