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1982 Grain Sorghum Performance Trials

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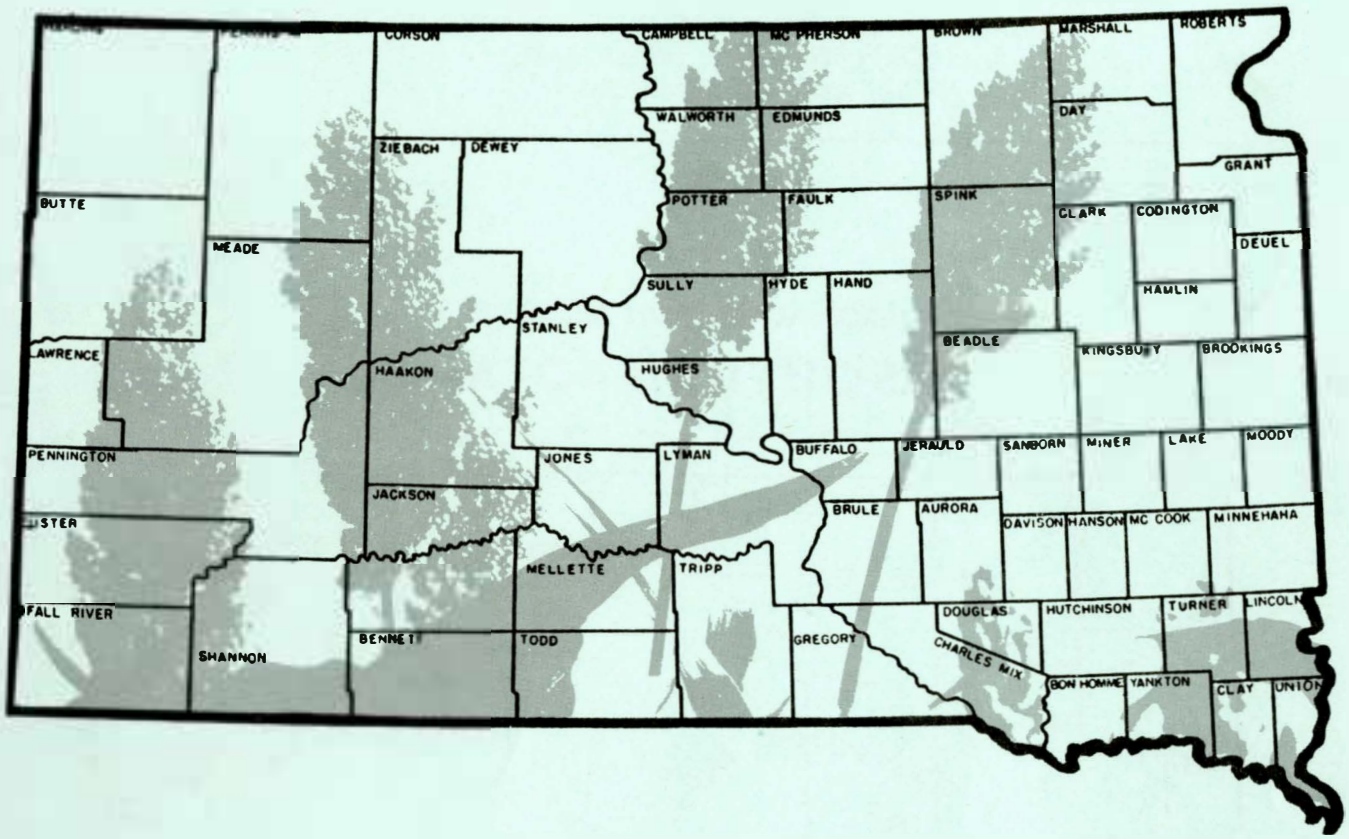
Grain Sorghum Performance Trials for 1982



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January 1983

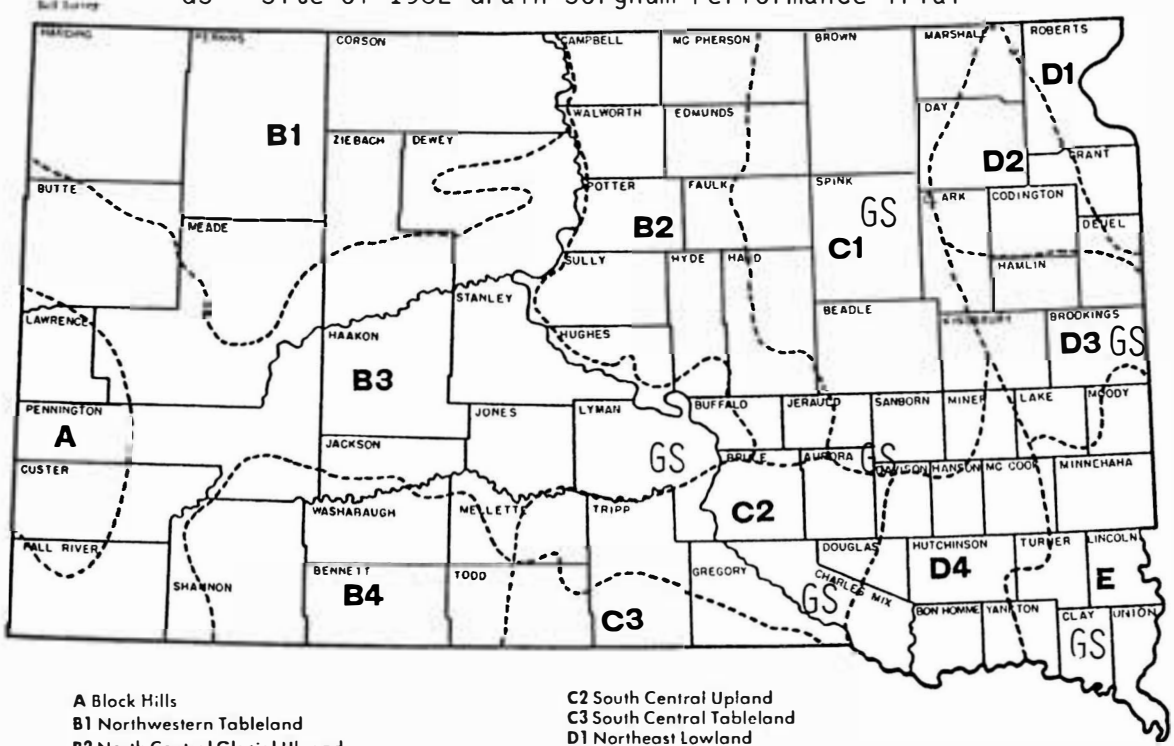
Agricultural Experiment Station
South Dakota State University
Brookings

Listing of Tables

CROP ADAPTATION AREAS OF

SOUTH DAKOTA

GS - Site of 1982 Grain Sorghum Performance Trial



A Block Hills
B1 Northwestern Tableland
B2 North Central Glacial Ulpand
B3 Pierre Plain
B4 Southwestern Tableland
C1 Northern James Valley
C2 South Central Upland
C3 South Central Tableland
D1 Northeast Lowland
D2 Northern Prairie Coteau
D3 Central Prairie Coteau
D4 Southern James Flatland
E Southeast Prairie Upland

1982 Grain Sorghum Performance Trials

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The relative performance of grain sorghum cultivars grown under similar environmental conditions is evaluated in this report for the 1982 crop season. Performance records of all entries harvested in 1982 and available two-through five-year averages are presented. The trials were conducted under the Plant Science Department program in Crop Performance Testing, Agricultural Experiment Station, South Dakota State University.

Location of the 1982 Trials

For adequate performance evaluation, all 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 each trial, row spacing and dates of seeding and harvesting are included in Table 1. Soil classification and data from soil samples taken, cultural practices and fertilizer applications are shown in Table 2.

Weather and Climatic Conditions

Climatic data for the 1982 grain sorghum year (Table 3) are based upon U.S. Monthly Climatological Data. Data is not available from the Geddes and Letcher sites so information from Pickstown and Mitchell are included for reference. Total precipitation for the May-October period of 1982 was normal to far above normal at all locations. Seeding was especially late at Letcher and Kennebec, June 11 and 21, respectively. Precipitation was somewhat limited at the sites in south-central South Dakota during parts of July and August, possibly affecting the earlier hybrids whose growth was more advanced.

Temperatures were below normal during most of the growing season slowing growth. Late seeding and cool temperatures delayed heading by at least 10 days; most heading not beginning until early August. The cool, wet weather continued through normal beginning harvest dates and an unseasonably early heavy snowstorm on October 20-21 caused lodging in many fields. Little farm harvest had been accomplished by then as only a light frost had occurred in some areas on September 21, other areas not having a frost until mid-October or when the snow occurred. Wet field conditions prevented harvest of many farm fields well into early December.

The lateness of seeding, wet and cooler weather at some sites, heavy rains and high winds all affected yields. The yields at Kennebec and Brookings were most

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The assistance of the following individuals is acknowledged; G. W. Erion and Q. S. Kingsley of the Plant Science Department; farmer cooperators Jack Biddle, Harlan Halverson and Oscar Thompson; and Station personnel A. C. Dittman, M. S. Esser, B. E. Lawrensen, Herb Lund, Lucian Edler and Kevin Kirby.

Table 1. Location of Trials, Date of Seeding and Harvesting of Grain Sorghum Performance Trials, South Dakota, 1982.

County	Location and Post Office	Row Spacing	Dates Seeded	Dates Harvested
Aurora	Oscar Thompson Farm, Letcher	36"	June 11	October 5
Brookings	Plant Science Farm, Brookings	36"	June 1	October 15
Charles Mix	Jack Biddle Farm, Geddes	30"	June 3	September 29
Clay	Southeast Experiment Farm, Beresford	36"	June 7	October 7
Lyman	Harlon Halverson Farm, Kennebec	38"	June 21	October 4
Spink	James Valley Research Farm, Redfield	36"	June 4	October 18

affected by late seeding and cool temperatures, respectively. Moisture in the grain was high at the time of first frost in September, especially in the northern areas. The cooler mid-summer temperatures delayed flowering, especially at Brookings, and later entries were quite immature at harvest.

Hybrid Entry Procedure

Only grain sorghums offered for sale in South Dakota or being produced for 1983 distribution were eligible for entry. A closed-pedigree hybrid was entered by the name and number under which it was sold by the participating company. All entries maintained a minimum laboratory germination of 80% as required by South Dakota Certification Standards. A nominal fee was charged for each entry in each area. Proprietary entries included are the choice of the participating companies.

Experimental Procedure

Each trial consisted of four replications of two-row plots. Each plot was randomly located within each replication. All trials were seeded with a 31-cell cone seeder mounted above flexi-planter units. A recommended herbicide for grassy weed control and an insecticide for greenbug control were banded over the row at seeding time. The row spacings used are indicated in Table 1 and plot lengths were dependent upon area available at each location. Seeding rates were adequate, under normal conditions, to achieve an average of 2 and 3 plants per foot of row in the central and eastern areas of the state, respectively. The trials at Redfield were irrigated by the gravity method.

Table 2. Soil Sample Analysis and Cultural Practices of 1982 Grain Sorghum Sites.

County and crop adaptation areas	Classification	Lab analysis Org. mat. %	P lbs/A	K lbs/A	pH	Field preparations Methods	Fert. lb/A N	P	K
Lyman, B2	Pierre clay	2.2	25	1470	7.3	Sweeps fall & spring	grain stubble		
Aurora, C1	Hou. Pros. Sil.	2.9	65	890	6.5	disced and harrowed	20	0	0
Spink, C1(irr)	Beotia SiC1	3.0	40	880	7.5	Plowed and disced	80	20	0
Chas. Mix, C2	Highmore SiC1	3.6	38	910	6.9	Sweeps and disced	oat stubble		
Clay, E	Egan SiC1	2.4	86	1380	6.8	Plowed and disced	80	30	20

Table 3. Temperature and Precipitation Data for the 1982 Grain Sorghum Performance Trials, South Dakota.

Location	Data	May	June	July	August	Sept.	Oct.	Total
Brookings	Precip. (inches)	4.31	2.25	5.55	1.92	2.74	3.14	19.87
2 NE	Temp. (mean)	57.8	60.8	71.0	68.0	57.8	46.4	
	Days 90° F +	--	--	2	2	--	--	
	Killing Frost	30° - Sept. 21		27° - Oct. 16				
Centerville	Precip. (inches)	9.34	1.69	3.01	2.66	1.26	4.18	22.14
6 SE	Temp. (mean)	60.9	63.9	73.5	70.0	60.7	49.0	
	Days 90° F +	--	--	7	5	--	--	
	Killing Frost	29° - Sept. 21		27° - Oct. 16				
Kennebec	Precip. (inches)	7.69	2.67	3.63	2.40	1.65	4.45	22.49
	Temp. (mean)	60.5	64.3	75.8	75.0	62.9	49.6	
	Days 90° F +	1	1	16	14	5	--	
	Killing Frost	29° - Sept. 25		25° - Oct. 8				
Mitchell	Precip. (inches)	2.95	2.54	1.47	1.95	1.84	4.61	15.36
2 NE	Temp. (mean)	59.9	63.3	75.1	72.0	61.5	48.3	
	Days 90° F +	--	1	8	8	2	--	
	Killing Frost	32° - Sept. 25;		31° - Oct. 7;		26° - Oct. 20		
Pickstown	Precip. (inches)	8.63	1.68	1.82	1.00	1.30	5.45	19.88
	Temp. (mean)	60.2	64.5	75.8	74.5	62.9	51.0	
	Days 90° F +	--	1	15	12	2	--	
	Killing Frost	28° - Oct. 21 (snow)						
Redfield	Precip. (inches)	4.54	1.72	3.44	1.40	2.30	4.74	18.14
6E	Temp. (mean)	58.6	61.9	74.1	71.5	59.8	47.3	
	Days 90° F +	--	1	14	11	2	--	
	Killing Frost	31° - Sept. 21;		30° - Oct. 16 & 20;			24° - Oct. 21	

Moisture determinations were made the third and fourth weeks in September, the time of normal date of killing frost. These are usually more reliable and informative than determinations made at harvest, generally after a freeze. Moisture and test weight of the grain realistically indicate relative maturity. Grain samples for moisture determinations were taken from all observation plots at all locations during the period of September 22 to 28. Ten to twelve heads, 400-500 grams, were cut from each entry, placed in a polyethelene bag, tagged and sealed. The samples were threshed, cleaned and moisture percentages determined with an electronic moisture meter. The upper limits of the meter are 35% and the material reported above this level, recorded as 35+ in the tables, would generally indicate lines of late maturity for the area. All entries in the trials at Brookings and Redfield were above 35% moisture and the moisture percentages are not reported in these two tables.

Harvesting was done before the severe killing frost of late October because the hazard of an early snowstorm and total crop loss is too critical to delay harvest beyond early October. The harvested grain was cut from a 10-foot section of each row for 15-20 linear feet in each individual plot. The heads were

bagged at harvest, tagged and tied, and returned to Brookings for drying and threshing. Yields are reported in pounds per acre (x 1.121 for Kg/Ha) with three or four replications harvested for yield and one left for observational purposes.

Discussion of Results

Yields were quite variable ranging from excellent at Centerville to mediocre for some entries at Brookings and Kennebec. The top hundred-weight (cwt.) yields were in the 60's at Centerville, the 50's at Geddes and Redfield, the 40's at Letcher and the 30's at Kennebec and Brookings. When sampled, many of the entries were high in moisture. In some trials the late frost permitted the grain to achieve physiological maturity and produce seed of good to excellent quality. However, the trials at Brookings and Kennebec were so late the extended season did not benefit many entries and the seed quality and test weight were quite poor (Tables 4 & 7). Long-term averages give a better indication of yield over several years' environments.

The moisture samples were indicative of moisture content in the kernels in mid-September and had a killing frost occurred about that time it would have been necessary to use a dryer to ensure safe moisture levels for storage. Some drying used to be favored by many growers as they could combine before frost, at 17-18% moisture, avoiding excessive lodging problems that often occurred once the stalks were frozen. As the cost of energy used for drying has risen sharply, the need for more hybrids to be at moisture levels safe for storage by late September should increase. Not many hybrids were below 20% moisture by late September 1982, even in the major production areas of South Dakota. An alternative in years such as 1982 would be to harvest as high-moisture grain, ensile, and feed in this manner.

Lodging was not a serious problem at most plot sites as the trials were harvested before the heavy snow storm occurred in October. Lodging was quite variable at Geddes, ranging from a trace for some entries to nearly 50% for other hybrids. Drought stress appeared to affect some of the earlier varieties more severely than the later entries, possibly causing weakened stalks.

Bird damage was not a serious problem at most locations; only slight picking was noted at Brookings. The trials located within fields of farmer-cooperators were not as subject to picking as in smaller fields. Yield, quality and test weight were affected by the stage of growth when moisture or temperature extremes occurred.

Measurement of Performance

Variations in factors such as 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.

Yields of 1982 and other agronomic data are reported in Tables 4 through 9. A listing of all entries is presented in Table 10.

Table 4. 1982 Grain Sorghum Performance Trial, Area B3, Harlon Halverson Farm, Kennebec, Lyman County, South Dakota

Brand and Hybrid	Height, inches	Percent Moisture 9/28/82	Test Wt. lb/B	Yield, Pounds per Acre 1982	1978-82	1979-82	1980-82	1981-82
DeKalb Exp 223	42	28.1	53	3165				
Paymaster R920	44	23.8	55	2885				
DeKalb DK-28	41	31.8	44	2830				
Western WS-205	46	35.+	49	2620				3220
SeedTec 1002	40	35.+	52	2595				
Western WS-203	45	35.+	48	2545			3195	2910
Warner W-545T	39	35.+	49	2515		3085	2950	2895
Northrup King NK1210	41	35.+	51	2490			3355	3140
Funk's G-261	42	35.+	53	2470			3365	2950
Triumph Two 50YG	46	35.+	49	2455				
Pfizer Genetics M518G	40	35.+	50	2360			3005	2670
DeKalb DK-38	48	35.+	46	2340				2225
Cenex 224T	38	35.+	46	2315			2805	2560
Northrup King X3227	41	21.9	52	2285				
Funk's G-251	37	25.2	49	2285				
Warner W-564T	48	35.+	48	2250				
Warner WX9181	41	35.+	45	2240				
Northrup King NK2018	44	35.+	45	2225				
Funk's G-1350	41	33.1	44	2210				
Triumph Two 48YG	39	35.+	49	2145				
Pride P151B	38	35.+	44	2095			3150	2750
O's Gold GS492	46	35.+	44	1900				
Western WS-206	44	35.+	45	1880	3285	3580	3330	2520
Paymaster 930	46	35.+	46	1870				
O's Gold GS709	46	35.+	45	1850				
Northrup King X7911	44	34.9	45	1840				
Warner WX9183	44	35.+	44	1780				
PAG 2250	40	35.+	39	1765				
SeedTec 624G	50	35.+	45	1745				2250
Cenex 310T	46	35.+	40	1680		2960	3105	2395
SeedTec 651DR	51	35.+	47	1620				2325
SeedTec 652G	47	35.+	43	1550				
O's Gold GS707	47	35.+	47	1510				
Paymaster R980	42	35.+	36	1415				
Cenex 228T	44	35.+	46	1390		2730	2365	2105
PAG Exp 91008	47	35.+	42	870				
Means	43	33.7	47	2110				
		LSD (.05)		610	C.V. - % = 17.9			

Table 5. 1982 Grain Sorghum Performance Trial, Area C1 (dryland), Oscar Thompson Farm, Letcher, Aurora County, South Dakota

Brand and Hybrid	Height, inches	Percent Moisture 9/22/82	Test Wt. lb/B	Yield, Pounds per Acre 1982	1978-82	1979-82	1980-82	1981-82
SeedTec 652G	48	35.+	58	4295				4840
Disco 200R	49	35.+	59	4050				
Warner W-564T	47	35.+	58	3935		3705	3935	4395
SeedTec 624G	52	35.+	59	3875				4265
DeKalb DK-28	39	31.2	58	3840				
DeKalb DK-38	47	33.8	60	3800				4450
Triumph Two 54YG	47	35.+	58	3800				4155
Cenex 224T	41	31.6	58	3715			3585	3810
Warner W-655T	47	35.+	58	3705		4030	3880	4375
Triumph Two 50YG	47	33.3	58	3660				
Western WS-212	45	35.+	57	3620				4165
Northrup King X7911	42	35.+	59	3570				
Paymaster 930	44	33.2	58	3560				
Cenex 310T	47	35.+	57	3515		3600	3685	3945
Warner WX9183	44	30.5	58	3505				
Disco 182R	40	35.+	57	3405				
Cargill 40	41	35.+	58	3405				
Cargill 30	46	35.+	58	3400			3375	3680
Cenex 228T	46	34.3	59	3385		3810	3690	4100
SeedTec 651DR	50	34.3	57	3370				4380
Asgrow Corral	46	35.+	58	3345	3645	3690	3540	4045
PAG Exp 91008	43	35.+	57	3325				
Asgrow Dorado E	43	35.+	57	3230		3725	3365	3630
Disco 184R	43	35.+	57	3225				
Funk's G-1460	41	35.+	60	3190				
SeedTec 1002	39	35.+	58	3155				
Funk's 1350	42	30.4	57	3075				
Northrup King NK2018	43	35.+	60	3045		3310	3200	3510
PAG 2250	41	33.9	57	3020				
Pfizer Genetics M518G	39	34.5	57	3020				
Funk's G-261	41	31.6	58	3005			3095	3110
Cargill 22	43	30.2	58	2995				
Northrup King NK1210	39	29.9	56	2930				
DeKalb DK-39Y	41	35.+	57	2910				
Paymaster R980	40	35.+	59	2890				
Paymaster GR1018	41	35.+	55	2880				
Warner W-684DR	40	35.+	57	2765				
Paymaster R920	42	24.4	56	2565				
Warner WX9181	40	30.2	54	2350				
Northrup King X3227	37	20.6	57	1640				
Means	43	33.3	58	3300				

LSD (.05) 765 C.V. - % = 14.4

Table 6. 1982 Grain Sorghum Performance Trial, Area C1 (irrigated), James Valley Research Center, Redfield, Spink County, South Dakota

Brand and Hybrid	Date Headed	Height, Inches	Test Wt. lb/B	Yield, Pounds per Acre 1982	1978-82	1979-82	1980-82	1981-82
Cenex 228T	8/15	48	57	5595		4270	5145	5195
SeedTec 624G	8/15	58	58	5490				5265
DeKalb Exp 223	8/8	45	57	5425				
DeKalb DK-38	8/13	54	55	5390				5070
Warner W-564T	8/14	50	57	4945				
Pride P508GB	8/13	44	55	4940		4205	4890	4930
Northrup King X7911	8/15	46	56	4935				
Paymaster 930	8/15	46	57	4710				
Triumph Two 54YG	8/19	51	55	4575			4800	4860
Warner WX9183	8/17	49	54	4555				
Warner W-655T	8/16	52	54	4555			4830	4840
Triumph Two 50YG	8/15	48	58	4525				
SeedTec 651DR	8/20	55	53	4465				4475
Northrup King NK2244	8/22	41	40	4445				
PAG Exp 91008	8/20	48	55	4380				4295
Warner W-545T	8/15	40	56	4345		3915	4730	4705
SeedTec 1002	8/14	39	56	4255				
Northrup King NK2018	8/12	46	56	4245		3940	4475	4470
Cenex 224T	8/15	39	57	4235			4400	4445
SeedTec 652G	8/18	54	54	4220				4660
Western WS-203	8/18	46	54	4175				4430
PAG 2250	8/13	41	56	4150				
Asgrow Dorado E	8/16	46	55	4135	4165	4080	4925	4255
Asgrow Corral	8/18	51	54	4095	4280	4155	4875	4655
Funk's G-1350	8/16	47	55	3990				
Cargill 22	8/16	42	56	3960				
Pride P812GB	8/23	50	53	3945				
Cargill 40	8/22	47	55	3840				
Warner WX9181	8/20	44	54	3740				
Northrup King NK2030	8/19	42	54	3690		3550	4205	4250
Paymaster R920	8/11	49	56	3640				
Warner W-684DR	8/22	48	54	3610				
Funk's G-251	8/10	37	57	3605				
Paymaster R980	8/19	43	54	3585				
Funk's G-201	8/16	44	55	3525				
Paymaster GR1018	8/21	45	53	2985				
Cargill 30	8/22	48	54	2920			4115	3750
Means		47	55	4265				

LSD (.05) 895 C.V. - % = 13.0

Moisture samples taken on September 22, 1982, the morning following the first frost, indicated all entries were still in excess of 35% moisture.

Table 7. 1982 Grain Sorghum Performance Trial, Area D3, Plant Science Farm, Brookings, Brookings County, South Dakota

Brand and Hybrid	Date Headed	Height, Inches	Test Wt. lb/B	Yield, Pounds per Acre 1982	1978-82	1979-82	1980-82	1981-82
Paymaster R920	8/2	46	54	3845				
Migro TEK Exp 2006	8/8	48	47	3475				
Cenex 228T	8/12	48	51	3465		4200	4420	3615
DeKalb DK-28	8/7	41	53	3435				
Triumph Two 50YG	8/12	48	52	3400				
DeKalb Exp 223	8/2	46	55	3390				
Migro TEK 1011R	8/13	48	54	3380				3500
Warner W-545T	8/11	39	48	3370		4185	4025	3575
Warner WX9183	8/12	45	50	3350				
Warner W-564T	8/11	48	47	3335		4030	3785	3565
Paymaster 930	8/11	47	47	3335				
Funk's G-1460	8/13	47	49	3255				
Western WS-205	8/9	52	50	3070				3715
Funk's G-261	8/8	47	53	3045				3540
Warner WX9181	8/10	47	44	3005				
Northrup King NK2018	8/8	46	48	2995				
Funk's G-1350	8/13	46	46	2945				
Northrup King X7911	8/11	46	49	2910				
PAG 2250	8/8	42	50	2905				
Migro TEK Exp 2008	8/14	47	46	2870				
Triumph Two 54YG	8/14	53	48	2835				
Warner W-655T	8/14	52	43	2785			3725	3210
Cargill 22	8/10	45	46	2680				
Northrup King NK2244	8/15	48	45	2590				
Migro TEK 1021R	8/16	50	44	2560				3055
Warner W-684DR	8/16	47	40	2470				
Western WS-203	8/11	48	48	2425			4200	3350
Cargill 30	8/15	52	47	2320			3070	2445
Paymaster R980	8/14	45	45	2285				
Northrup King NK2030	8/15	43	39	2275				
Cenex 310T	8/16	53	47	2255			3285	2575
Cargill 40	8/16	48	39	2190				
Migro TEK 14R	8/17	53	45	2170				2465
PAG EXP 91008	8/16	52	42	1955				
Means		47	47	2900				
LSD (.05)				860	C.V. - % = 18.3			

Moisture samples taken on September 24, 1982, three days following the first frost, indicated all entries were still in excess of 35% moisture.

Table 8. 1982 Grain Sorghum Performance Trial, Area E, Southeast Experiment Farm, Centerville, Clay County, South Dakota

Brand and Hybrid	Date Headed	Height, Inches	Percent Moisture 9/22/82	Test Wt. lb/B	Yield, Pounds per Acre 1982	1978-82	1979-82	1980-82	1981-82
Cenex 228T	8/3	51	26.8	59	6115		5070	4740	5805
Kaltenburg KS1001	8/3	50	33.8	59	5960				
Migro TEK 1011R	8/5	48	31.7	59	5955				
Funk's G-1460	8/6	50	33.6	60	5890				
O's Gold GS709	8/7	58	35.+	58	5860				
AgriGold AG-255	8/8	57	34.5	59	5860				
Western WS-212	8/9	55	35.+	59	5825				5785
Warner W-655T	8/9	58	35.+	59	5820				6220
Northrup King NK2244	8/9	49	32.8	58	5740				
Cargill 30	8/6	57	33.7	59	5715		4855	4385	5310
DeKalb DK-38	8/3	60	30.9	59	5680				6290
Cenex 310T	8/8	56	35.+	56	5675		5375	4845	5580
Asgrow Dorado E	8/3	52	24.3	52	5665		4985	4590	5850
Asgrow Corral	8/8	58	35.+	60	5615	5070	5320	4830	5665
PAG 4433	8/4	54	28.0	57	5610		4735	4470	5235
PAG Exp 91008	8/11	55	35.+	59	5590				5675
AgriGold AG-235	8/2	41	35.+	59	5515				
DeKalb DK-42	8/8	49	35.+	57	5475			4690	5470
Funk's G-1560	8/12	47	35.+	57	5465				
Golden Acres T-E Y44R	8/4	48	30.5	58	5410				5515
Kaltenburg KS2001	8/9	58	35.+	58	5370				
Northrup King X7911	8/4	49	28.1	59	5365				
Migro TEK 1021R	8/10	49	35.+	58	5360				5720
Migro TEK 1055R	8/9	55	35.+	58	5340				
Cargill 22	8/3	51	25.6	57	5325				
O's Gold GS492	8/3	51	26.9	59	5300				
O's Gold GS707	8/6	61	35.+	59	5230				
Northrup King NK2030	8/8	46	32.5	56	5225		4810	4245	5585
Migro TEK 14R	8/10	56	34.8	59	5195				5645
Golden Acre T-E Y45G	8/8	55	35.+	58	5145				
DeKalb DK-58	8/12	55	35.+	59	5110				
Northrup King NK2018	8/2	49	27.2	60	5015				
Cargill 40	8/11	53	35.+	59	5005				
Warner W-684R	8/9	56	35.+	59	4935				
Kaltenburg KS901	8/2	41	32.2	59	4425				
Means		52	32.6	58	5480				

LSD (.05) 820 C.V. - % = 9.2

Table 9. 1982 Grain Sorghum Performance Trial, Area C2, Jack Biddle Farm, Geddes, Charles Mix County, South Dakota

Brand and Hybrid	Height, Inches	Percent Lodging	Percent Moisture 9/22/82	Test Wt. lb/B	Yield, Pounds per Acre 1982	1978-82	1979-82	1980-82	1981-82
Cenex 310T	43	13	23.5	59	5375		4990	4990	5185
O's Gold GS707	44	13	25.9	58	4940				
Golden Acres T-E Y45G	43	6	32.4	59	4855				
DeKalb DK-38	44	4	24.6	58	4840				4885
Migro TEK 14R	42	44	29.5	59	4800				4590
O's Gold GS709	42	16	24.5	59	4795				
DeKalb DK-58	42	3	29.6	59	4755				
Disco 200R	45	8	26.2	59	4620				
Funk's G-1460	40	2	21.2	59	4620				
Golden Acres T-E Y44R	37	2	24.2	61	4595				4410
Asgrow Corral	43	10	26.5	59	4575	5095	4580	4680	4800
Asgrow Dorado E	41	2	22.7	59	4570	4380	4035	4065	4525
Triumph Two 50YG	41	12	30.6	57	4525				
SeedTec 624G	46	13	27.2	59	4520				4830
Cargill 30	38	3	27.9	58	4430		4340	4405	4520
Migro TEK 1021R	40	12	25.2	58	4405				4490
Warner W-655T	41	30	30.2	59	4370		4330	4275	4450
DeKalb DK-28	37	1	18.6	60	4350				
Pride P812GB	40	12	27.4	56	4340				4295
Western WS-212	43	18	25.9	59	4315				4545
SeedTec 652G	42	42	28.3	58	4285				4580
Pfizer Genetics M550G	42	22	28.7	58	4270				4450
Warner W-564T	40	3	21.7	59	4265		4105	4065	4245
SeedTec 651DR	44	30	24.9	58	4255				4355
Migro TEK Exp 2008	40	13	21.0	57	4230				
Triumph Two 48YG	37	2	21.0	57	4215				
Kaltenburg KG1001	42	5	28.8	58	4170				
Migro TEK Exp 2006	39	5	25.3	58	4170				
Cargill 22	39	2	19.9	59	4165				4205
Kaltenburg KG2001	40	10	26.2	58	4145				
DeKalb DK-42	36	2	26.7	57	4100			4535	4400
Paymaster GR1018	38	0	30.1	58	4075				
Disco 204R	41	28	32.6	58	4075				
Migro TEK 1011R	39	3	24.6	56	4065				4210
Cargill 40	40	3	25.5	59	4065				
Warner W-684DR	40	12	31.1	58	4020				
PAG Exp 91008	43	42	26.5	58	3980				4670
O's Gold GS492	39	6	18.2	56	3965				
Northrup King X7911	37	17	22.5	59	3920				
Western WS-206	42	3	19.9	57	3875				4040
Paymaster R980	39	2	23.8	56	3865				
Paymaster R920	41	57	15.0	57	3855				
DeKalb DK-39Y	37	0	29.2	59	3855				
Cenex 228T	40	7	30.3	58	3750		3900	3945	4190

Table 9 (Cont.) 1982 Grain Sorghum, Geddes, SD

Funk's G-499GBR	34	0	28.7	57	3745		4320	4005
Northrup King NK2018	40	0	19.9	59	3745	3865	3685	4110
SeedTec 1002	37	5	21.2	57	3725			
Funk's G-1350	40	2	21.9	49	3705			
Paymaster 930	42	12	26.5	55	3695			
Warner WX9183	39	13	23.2	54	3665			
Warner WX9181	38	2	19.5	56	3575			
PAG 2250	39	2	15	58	3565			
Kaltenburg KG901	35	0	24.2	57	3400			
Northrup King NK1210	37	10	17.9	54	3295			
Northrup King X3227	40	33	15.0	54	2050			
Means	40	11	24.7	58	4150			
				LSD (.05)	835	C.V. - % = 12.5		

Table 10. Entries Submitted for the 1982 Grain Sorghum Performance Trials and Tables Where the Results Appear.

Company and Brand	Hybrid	Tables
AgriGold Seed Co. RR #5, Box 55 Boone, IA 50036 "AgriGold"	AG-235 AG-255	8 8
Asgrow Seed Company 7000 Portage Road Kalamazoo, MI 49001 "Asgrow"	Corral Dorado E	5,6,8,9 5,6,8,9
Cargill Seeds P.O. Box 328 St. Peter, MN 56082 "Cargill"	22 30 40	5,6,7,8,9 5,6,7,8,9 5,6,7,8,9
Cenex Seed Plant P.O. Box 964 Sioux Falls, SD 57101 "Cenex"	224T 228T 310T	4,5,6 4,5,6,7,8,9 4,5,7,8,9
DeKalb AgResearch, Inc. Rt 1, Box 225 Glenvil, NB 68941 "DeKalb"	DK-28 DK-38 DK-39Y DK-42 DK-58 Exp 223	4,5,7,9 4,5,6,8,9 5,9 8,9 8,9 4,6,7
Disco Division of Williams Corp. P.O. Box 640 Mitchell, SD 57301 "Disco"	182R 184R 200R 204R	5 5 5,9 9

Table 10. (cont.) Entries Submitted for the 1982 Grain Sorghum Trials and Tables Where Results Appear.

Company and Brand	Hybrid	Tables
Funk Seed International	G-251	4,6
719 26th Street	G-261	4,5,6,7
Lubbock, TX 79404	G-499GBR	9
"Funk's"	G-1350	4,5,6,7,8,9
	G-1460	5,7,8,9
	G-1560	8
Taylor-Evans Seed Co.	T-E Y44R	8,9
Box 68	T-E Y45R	8,9
Tulia, TX 79088		
"Golden Acres"		
Kaltenburg Seeds	KG901	8,9
RR 2	KG1001	8,9
Waunakee, WI 53597	KG2001	8,9
"Kaltenburg"		
King's Western Seed, Inc.	WS-203	4,6,7
P.O. Box 947	WS-205	4,7
Huron, SD 57350	WS-206	4,9
"Western"	WS-212	5,8,9
Migro	TEK 14R	7,8,9
P.O. Box 2955	TEK 1011R	7,8,9
Mission, KS 66201	TEK 1021R	7,8,9
"Migro"	TEK 1055R	8
	TEK Exp 2006	7,9
	TEK Exp 2008	7
Northrup King Co.	1210	4,5,9
4124 Quebec Ave. No. 205	2018	4,5,6,7,8,9
New Hope, MN 55427	2030	6,7,8
"Northrup King"	2244	6,7,8
	X 3227	4,5,9
	X 7911	4,5,6,7,8,9
O's Gold Seed Co.	GS492	4,8,9
P.O. Box 460	GS707	4,8,9
Parkersburg, IA 50665	GS709	4,8,9
"O's Gold"		
PAG Seeds	2250	4,5,6,7,9
Box 1207	4433	8
Fremont, NB 68025	Exp. 91008	4,5,6,7,8,9
"PAG"		
Paymaster Seeds	R 920	4,5,6,7,9
P.O. Box 307	930	4,5,6,7,9
Belmond, IA 50421	R 980	4,5,6,7,9
"Paymaster"	GR 1018	5,6,9
Pfizer Genetics	M518G	4,5
P.O. Box 166	M550G	9
Olivia, MN 56277		
"Pfizer Genetics"		
Pride Company, Inc.	P151GB	4
RFD Box 58	P508GB	6
Glen Haven, WI 53810	P812GB	6,9
"Pride"		
SeedTec International	1002	4,5,6,9
P.O. Box 2212	624G	4,5,6,9
Hereford, TX 79045	651DR	4,5,6,9
"SeedTec"	652G	4,5,6,9
SIGCO Research, Inc.	Two 48YG	4,9
Box 150	Two 50YG	4,5,6,7,9
Breckenridge, MN 56520	Two 54YG	5,6,7
"Triumph"		
Geo. Warner Seed Co., Inc.	W-545T	4,6,7
P.O. Box 1448	W-564T	4,5,6,7,9
Hereford, TX 79045	W-655T	5,6,7,8,9
"Warner"	W-684DR	5,6,7,8,9
	WX 9181	4,5,6,7,9
	WX 9183	4,5,6,7,9

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