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1969 Grain Sorghum Performance Trials

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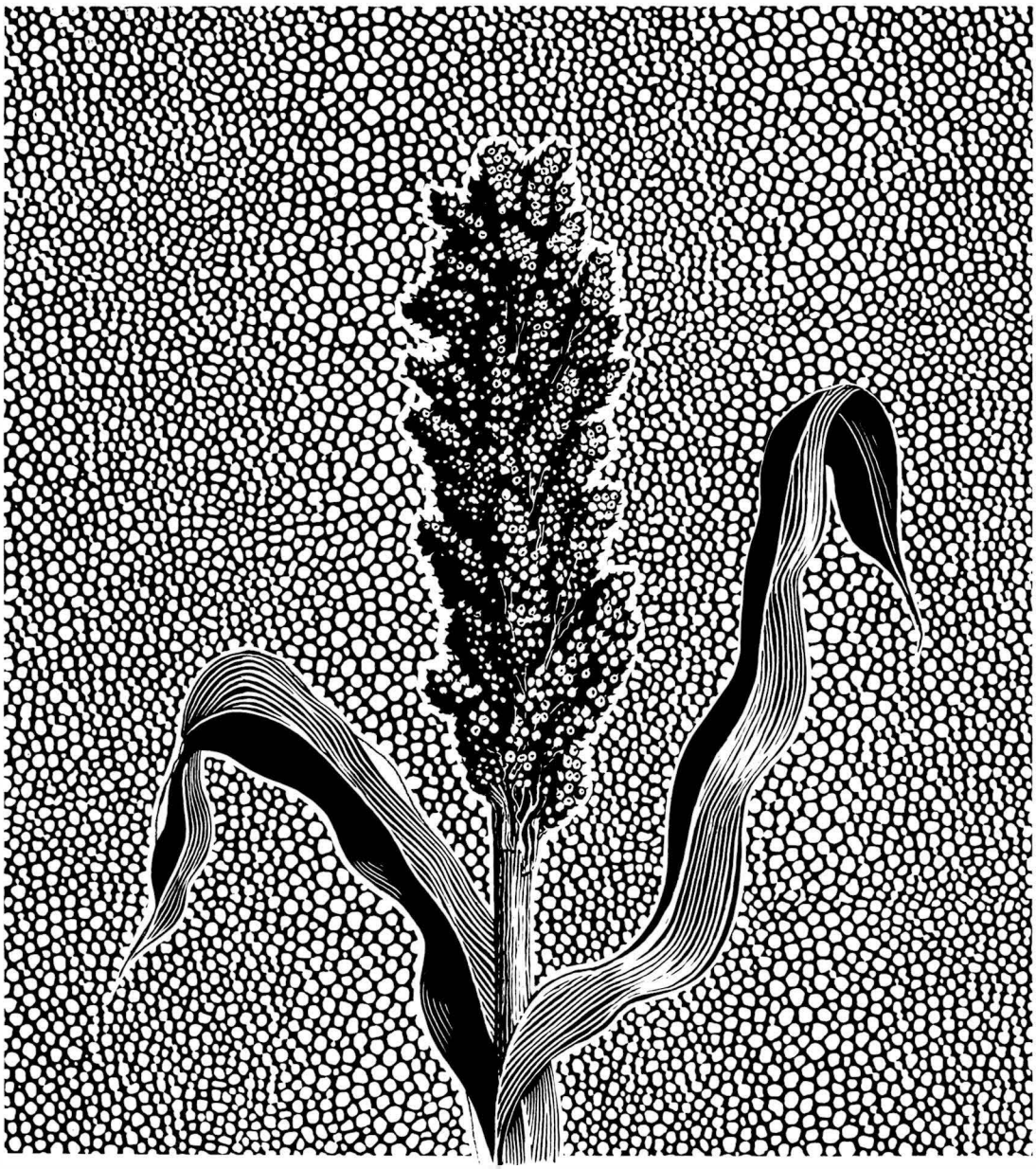
January 1970 Circular 199

1969 GRAIN SORGHUM PERFORMANCE TRIALS



PLANT SCIENCE DEPARTMENT
AGRICULTURAL EXPERIMENT STATION
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The primary purpose is to supply interested individuals with information on the relative performance of the hybrids entered when grown under similar environmental conditions. Records of performance of the hybrids harvested in 1969 and available two-, three-, four-, and five-year averages are presented. The trials reported in the circular have been under the supervision of the Crop Performance Testing Activity, Agricultural Experiment Station.

Location of the 1969 Trials

To adequately evaluate the performance ability of the various entries they must be grown under similar conditions of environment. The crop adaptation areas in which the trials are grown are based upon differences in soil type, elevation, temperature, rainfall and other physical differences. The trial at Eureka was dropped as less than one percent of the harvested acreage in the northcentral part of the state is grain sorghum. The exact location of these trials and dates of seeding and harvesting are reported in Table 1. Data from soil samples taken at the various sites at time of seeding and the fertilizer applied are presented in Table 2.

Weather and Climatic Conditions

Climatic data for the 1969 grain sorghum growing season are based upon Monthly Climatological Data, U. S. Department of Commerce, and from the reports of the substation superintendents at the Northeast and South Central Research Farms. The data are presented in Table 3. Rainfall at the Geddes site was not officially recorded but heavier amounts were reported for June and July and very little thereafter.

The trials were seeded from May 19 through May 29. Soil moisture was generally adequate at most locations though precipitation during May was very limited. May temperatures were quite normal but the seed was just beginning to germinate when heavy precipitation and the very cool temperatures of June took control. Growth was slow and heading and pollination delayed two or more weeks at some

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The assistance of the following individuals is acknowledged: A. O. Lunden of the Plant Science Department; Substation supervisors Lloyd Dye, Jake Fredrikson, Harry Geise, Frank Holmes, Quentin Kingsley, Burton Lawrensen and Herb Lund, and farmer-cooperator William Fijala.

TABLE 1. THE LOCATION OF TRIALS AND DATES OF SEEDING AND HARVESTING OF GRAIN SORGHUM PERFORMANCE TRIALS, SOUTH DAKOTA, 1969

County	Location and post office	Date seeded	Date harvested	Row spacing
				Inches
Brookings	Agronomy Farm, Brookings	May 29	October 8	40
Charles Mix	William Fijala Farm, Geddes	May 19	Sept. 30	40
Clark	Northeast Research Farm, Garden City	May 27	October 7	36
Clay	Southeast Experiment Farm, Beresford	May 23	October 9	30
Hyde	Central Substation, Highmore	May 28	October 2	40
Lyman	South Central Research Farm, Presho	May 28	October 1	40
Spink	Redfield Development Farm, Redfield	May 26	October 7	21

Freezing temperatures were recorded until June in some areas of South Dakota. Some varieties were still pollinating in mid-September. The delayed fall frosts were of great benefit or much of the grain sorghum would have been poor in quality. The lateness of the season is evident in the moisture percentage data reported for all varieties at all sites in late September on the normal first frost date. However, the additional period until freezing temperatures occurred, two or more weeks for a killing frost, allowed the grain to mature at least physiologically and the dried grain still had very good test weights and produced good quality grain.

Hybrid Entry Procedure

Grain sorghums offered for sale in South Dakota or being produced for distribution in 1970 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. Varieties entered maintained minimum laboratory germination of 80% as required by South Dakota Certification Standards. A nominal fee was charged for each entry

TABLE 2. SOIL CLASSIFICATION, LABORATORY ANALYSIS OF SOIL SAMPLES TAKEN PRIOR TO SEEDING GRAIN SORGHUM AND FERTILIZER APPLIED FOR THE 1969 CROP YEAR

		Laboratory analysis				Fertilizer applied			
		Org.	P	K			N	P	K
County and area	Soil classification	mat. %	lb/A		pH	Method	lb/A		
Brookings, D3	Vienna L	3.5	15	197	6.9	plowed down	70	30	30
Charles Mix, C2	Reliance SiCl	3.6	16	682	7.6	anhydrous	50	0	0
Clark, D2	Poinsett SiCl	3.8	33	404	6.5	plowed down	50	40	0
Clay, E	Kranzburg SiCl	3.9	20	588	7.3	disced under	145	55	50
Hyde, B2	Williams L	2.1	44	404	7.0	disced under	30	18	0
Lyman, B3	Pierre C	3.5	8	682	7.7	plowed down	40	40	0
Spink, C1	Boetia-Harmony SiCl	3.5	70	682	7.0	plowed down	100	35	0

TABLE 3. TEMPERATURE AND PRECIPITATION DATA FOR THE 1969 GRAIN SORGHUM GROWING SEASON IN SOUTH DAKOTA

		Temperature, degrees F			Precipitation, inches		
Location	Month	Mean Av.	Departure from normal	Av. Departure	Month total	Departure from normal	Total departure
Brookings*	May	56.9	-0.7		3.02	0.23	
2NE	June	58.5	-8.6		7.20	3.25	
	July	69.6	-3.6		3.48	1.33	
	August	69.7	-1.5		1.49	-1.48	
	Sept.	59.8	-1.5	-3.1	1.32	-0.71	2.62
	Last freeze May 27				16.57		
Centerville*	May	62.5			3.13		
6SE	June	64.6			4.11		
	July	74.5			4.64		
	August	72.6			3.94		
	Sept.	64.2			1.26		
	Last freeze May 12				17.08		
Garden City	May	54.8	-2.0		3.44	0.59	
4NE	June	59.3	-6.7		2.47	-1.53	
	July	67.4	-5.4		6.51	3.64	
	August	70.1	-0.9		0.76	-2.20	
	Sept.	58.3	-2.4	-3.5	0.56	-1.71	-1.21
	Last freeze May 11				13.74		
Highmore*	May	60.5	3.3		1.14	-1.19	
1W	June	61.2	-5.6		3.59	0.05	
	July	72.2	-2.3		3.26	1.28	
	August	75.5	2.7		2.30	0.26	
	Sept.	65.5	2.9	-0.2	1.28	-0.03	-0.37
	Last freeze June 2				11.57		
Redfield*	May	59.4			2.37		
6E	June	61.5			2.98		
	July	72.3			3.14		
	August	74.8			1.41		
	Sept.	64.7			1.37		
	Last freeze June 14				11.27		
Presho	May	60.5			2.37		
11S	June	65.2			3.17		
	July	74.2			3.73		
	August	79.2			0.80		
	Sept.	66.6			0.63		
	Last freeze May 9				10.70		

* Based upon reports of Monthly Climatological Data, U. S. Dept. of Commerce.

in each area except grain sorghum hybrids developed by State and Federal Experiment Stations and entered by the South Dakota Agricultural Experiment Station.

Experimental Procedure

Each trial consisted of four replications and plots of individual entries were randomly located within each replication. All trials were seeded two rows at a time, with cone planters mounted above runner-type planter units. The various row spacings used are found in Table 1. The plots were two rows wide and row lengths varied with range dimensions at each location.

The harvested grain was taken from two ten-foot sections of each row in each individual plot. The heads were bagged as harvested, tagged and tied, returned to the Main Station and allowed to air dry in a pole shed for several weeks. Prior to threshing the bags were placed in driers for several days. Yields were calculated on the basis of pounds per acre. Three replications were harvested for yield determination and the fourth left for observational purposes.

Moisture determinations made at the time of normal first-frost dates are generally more reliable and informative than determinations made at harvest time. Generally, these figures and the test weight of the grain indicate more realistically the maturity of the grain.

A route was established and moisture samples were taken at all sites from September 23 through 25. Ten to twelve sorghum heads, adequate for a 400-500 gram sample, were cut from each entry, placed in a polyethylene bag, tagged and sealed tightly. Upon returning to the Main Station the samples were threshed, cleaned and moisture percentages determined with an electronic moisture meter. The upper limit of the meter is 35 percent. Material above this level is indicated as 35.+ in the tables and normally would indicate hybrids of late maturity for this area. Many varieties were exceptions to this in 1969, even though at time of sampling the percentages were at or near 35. These entries were mature physiologically but cool, damp weather delayed the loss of moisture from the grain.

A bird repellant was used at locations where birds have been a serious problem. The repellant is not harmful to the birds but is bitter to the taste and discourages continual picking. Minor damage was noted at only one location. Seed and forage treated with this repellant is unfit for food or feed so treatment is limited to fields planted for experimental use or seed production.

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 whether yield differences were caused by variations in environment or were true varietal differences. Small yield differences have no significance.

Duncan's Multiple Range Test (5% level) was used to determine whether significant differences occurred. The line drawn between any two entry means in the 1969 yield data indicates that there is no difference between the entries above that line at the 5% level of probability.

Discussion of Results

Grain sorghums are grown extensively in the south central part of the state and in varying amounts elsewhere around the state too hot or dry for corn production. During 1969, the temperatures were below normal much of the summer, especially in the eastern third of the state. Precipitation was limited in the western two-thirds, especially in the major grain sorghum production areas. Timely rains helped alleviate the problem in several smaller areas.

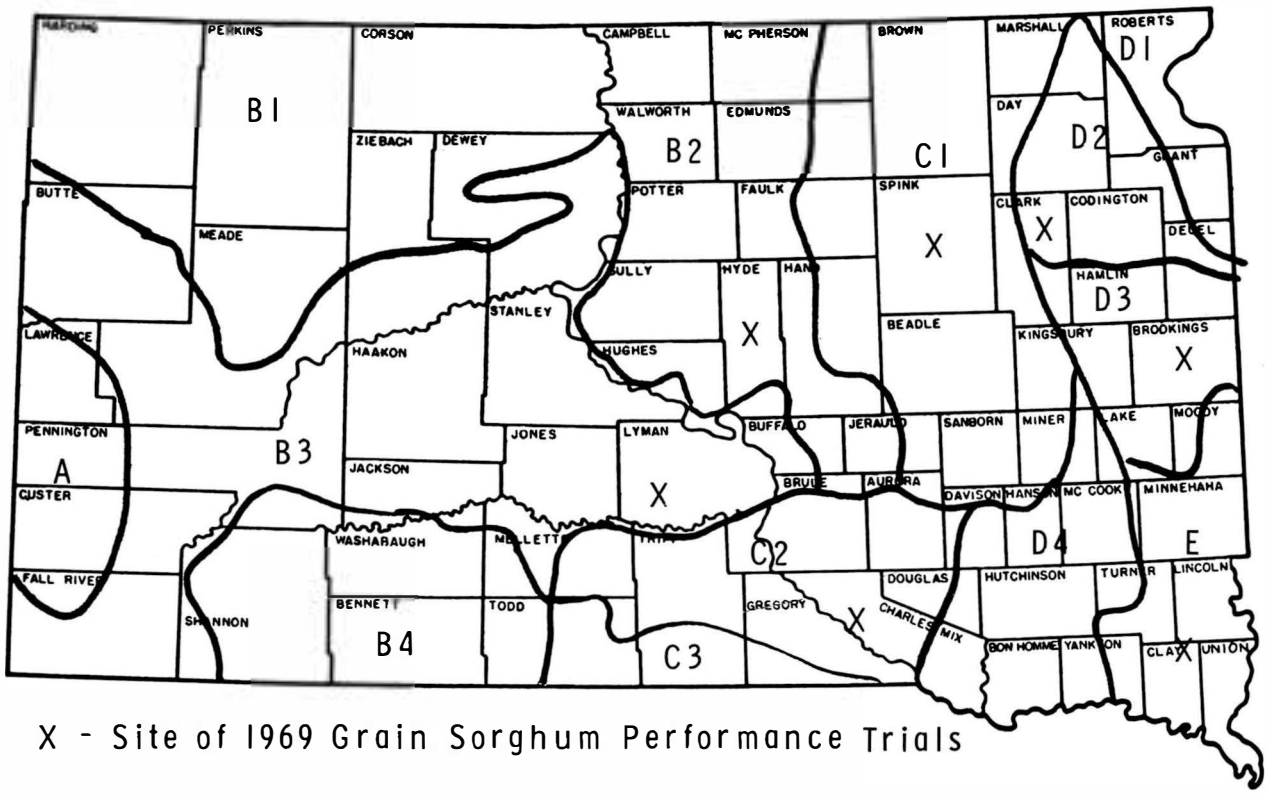
Seedbed conditions were variable at time of seedling and germination as much of the state had only limited rainfall during May. The absence of rain was helpful to the eastern areas still drying out from the record snow depths and subsequent flooding, but hindered rapid germination where seedbeds were quite dry and loose.

Stands were quite uniform at most sites but the Southeast Farm. A severe hailstorm enveloped the area on June 21, destroying small grains and badly damaging row crops. The hailstorm was of some benefit to the grain sorghum. Though growth was set back, excessive tillering resulted and filled in areas that were somewhat open. Results at the Southeast Farm site are high because the increased tillering coupled with ample rainfall and an extended frost-free period permitted production of excellent yields of high quality grain.

The yield and quality of the grain was good at most trial sites, despite the cool temperatures and heavier precipitation amounts earlier in the year. The delayed freeze allowed plants abnormal frost-free periods in the fall. Yields of grain were good although the grain while physiologically mature did not dry down and supplemental drying was often necessary for safe storage.

A summary of the entries tested and companies submitting them is presented in Table 17.

Crop Adaptation Areas



X - Site of 1969 Grain Sorghum Performance Trials

TABLE 4. 1969 GRAIN SORGHUM PERFORMANCE TRIAL, AREA B2, CENTRAL SUBSTATION, HIGHMORE

Variety	Height, inches	Percent moisture 9/24/69	Test wt. lb/bu	Yield, lb/A
SD 503	44	18.8	57.0	4430
DeKalb B-32a	40	19.7	58.5	4370
SD 451	44	18.5	56.0	4260
Pioneer 894	35	18.6	55.0	4100
DeKalb A-25	38	19.2	56.0	4070
ACCO BL 101	44	20.2	56.0	4000
Pioneer 887	34	18.5	51.5	3960
NK 125	42	19.8	54.5	3900
NK X 3004	37	17.5	57.0	3890
SD 441	47	17.8	56.0	3710
NK 120	40	22.4	55.0	3700
ACCO R 920	42	17.9	55.5	3630
Advance 67-22 E	44	20.2	56.0	3520
RS 610	41	31.1	55.0	3510
Frontier GX 410	34	30.2	54.0	3490
FMC Rapido	34	27.5	56.5	3480
Frontier 388A	37	28.8	58.0	3470
NK 127	36	26.9	57.5	3330
NK Mini-Milo 50A	37	21.0	59.0	2760
Frontier Grassy Grain I	41	19.7	55.5	2750
			Mean yield	3720

C.V. = 9.3%

TABLE 5. TWO-, THREE-, FOUR-, and FIVE-YEAR AVERAGE YIELDS OF GRAIN SORGHUM HYBRIDS IN THE B2 TRIALS AT HIGHMORE, 1965-1969

Variety	Average yield, pounds per acre			
	1965-69	1966-69	1967-69	1968-69
ACCO BL 101			4445	4860
Frontier-Grassy Grain I				3540
Frontier 388a				4225
Frontier GX 410				4515
NK 120	4120	4505	4345	4565
NK 125	3970	4365	4250	4485
NK 127				4105
Pioneer 894			3905	4550
SD 441	3460	3740	3460	3995
SD 451	3765	4020	3985	4240
SD 503	3600	4125	3985	4785

TABLE 6. 1969 GRAIN SORGHUM PERFORMANCE TRIAL, AREA B3, SOUTHCENTRAL RESEARCH FARM, PRESHO

Variety	Height, inches	Percent mositure 9/23/69	Percent lodging	Test wt. lb/bu	Yield, lb/bu
Pioneer 883	39	19.9	3	55.0	3060
DeKalb B 32a	35	16.2	0	58.0	2930
RS 633	42	32.5	0	57.0	2780
DeKalb A-25	30	13.7	5	52.0	2770
SD 503	45	15.2	10	57.0	2730
NK X 3004	38	13.6	2	56.0	2730
NK 120	38	14.0	3	53.0	2670
Pioneer 894	35	16.7	0	56.0	2620
ACCO R920	40	14.9	7	56.0	2530
SD 451	46	15.1	10	56.0	2530
ACCO Pawnee	39	15.3	10	58.0	2500
RS 610	38	20.7	2	56.0	2470
ACCO R94	38	14.9	2	58.0	2350
Frontier Grassy Grain I	41	15.3	2	56.0	2340
ACCO BL 101	43	14.0	10	55.0	2300
Pioneer 887	32	15.7	0	51.0	2290
NK 133	40	21.4	5	57.0	2280
NK 127	34	18.8	2	57.0	2230
Coop SG 20	35	17.3	2	58.0	2060
NK 125	45	14.6	3	54.0	2030
FMC Rapido	29	19.8	0	56.0	2000
Coop SG 10	36	22.3	2	59.0	1760
NK Mini-Milo 50A	38	14.3	8	57.0	1520
				Mean yield	2410

C.V. = 21.0%

TABLE 7. TWO-, THREE-, FOUR-, AND FIVE-YEAR AVERAGE YIELDS OF GRAIN SORGHUM HYBRIDS ENTERED IN THE AREA B3 TRIALS AT PRESHO, 1965-1969

Variety	Average yield, pounds per acre			
	1965-69	1966-69	1967-69	1968-69
ACCO R920			3540	3310
ACCO R94				3390
ACCO Pawnee	3090	3530	3485	3575
Frontier Grassy Grain I				3055
NK 120		3545	3845	3745
NK 127				3205
NK 133	3145	3455	3360	3370
Pioneer 883				3810
Pioneer 894			3425	3540
RS 610	3105	3815	3245	3325
SD 451	3260	3590	3650	3265
SD 503	3670	3740	3740	3635

TABLE 8. 1969 GRAIN SORGHUM PERFORMANCE TRIAL, AREA C1, IRRIGATED, REDFIELD DEVELOPMENT FARM, REDFIELD

Variety	Height, inches	Percent moisture 9/24/69	Test wt. lb/bu	Yield, lb/A
Pioneer 866	50	34.1	59.0	9010
RS 633	50	34.8	60.0	8430
Pioneer 883	45	35.+	58.5	8170
RS 610	46	35.+	59.5	8040
NK 120	48	27.0	58.5	7980
ACCO Pawnee	52	26.8	60.0	7950
DeKalb DD-50	44	35.+	58.0	7830
NK 133	44	34.6	60.0	7780
SD 403	44	26.8	59.0	7740
DeKalb B-32a	48	29.6	60.0	7620
Pioneer 885	47	35.+	58.5	7310
NK 127	50	34.1	59.0	7230
ACCO R 920	46	25.7	58.0	6960
SD 451	55	23.2	58.0	6930
ACCO BL 101	58	22.0	58.0	6850
DeKalb A-25	38	29.8	57.0	6740
ACCO R 94	52	27.8	60.0	6700
Pioneer 887	37	32.9	52.0	6350
FMC Rapido	43	33.5	57.0	6090
SD 441	54	19.5	57.0	5850
Pioneer 894	40	25.4	59.0	5710
NK X3004	44	22.8	57.5	5510
Frontier Grassy Grain I	51	25.9	57.0	5180
			Mean yield	7130

C.V. = 9.3%

TABLE 9. TWO-, THREE-, FOUR-, AND FIVE-YEAR AVERAGE YIELDS OF GRAIN SORGHUM HYBRIDS ENTERED IN THE C1 TRIALS AT REDFIELD, 1965-1969

Variety	Average yields, pounds per acre			
	1965-69	1966-69	1967-69	1968-69
ACCO BL 101			6910	6785
ACCO Pawnee	6595	6847	7715	7825
ACCO R94				6245
DeKalb DD-50			6665	7340
Frontier Grassy Grain I				5585
NK 120			8240	7705
NK 127			7065	6855
NK 133	6120	6295	7070	7085
Pioneer 883				7380
Pioneer 885	5905	6230	6720	7050
Pioneer 894			6195	6180
RS 610	6055	6235	6845	7480
SD 441			6480	6005
SD 451	6075	6335	7150	7095
SD 503	6355	6560	7260	7415

TABLE 10. 1969 GRAIN SORGHUM PERFORMANCE TRIAL, AREA D3, AGRONOMY FARM, BROOKINGS

Variety	Height, inches	Percent mositure 9/25/69	Test wt. lb/bu	Yield, lb/A
ACCO R 920	47	35.+	56.0	5210
NK 125	47	35.+	55.5	5060
Pioneer 894	40	35.+	57.0	5030
NK 120	48	35.+	57.0	5000
DeKalb A-25	45	35.+	55.0	4920
Curry's M-530	48	35.+	56.0	4820
SD 451	52	35.+	56.0	4780
DeKalb B-32a	48	35.+	57.0	4610
ACCO Pawnee	58	35.+	56.5	4570
ACCO BL 101	52	35.+	55.0	4530
NK X 3004	40	35.+	57.0	4440
Pioneer 887	40	35.+	54.0	4360
SD 441	52	34.6	56.0	4270
NK 127	45	35.+	56.0	4250
Pioneer 883	47	35.+	56.0	4180
Frontier Grassy Grain I	51	35.+	56.5	4050
RS 610	54	35.+	52.0	3880
SD 503	54	35.+	56.0	3870
NK Mini-Milo 50A	40	34.8	58.0	3520
FMC Rapido	47	35.+	52.0	3310
			Mean yield	4430

C.V. = 10.1%

TABLE 11. TWO-, THREE-, FOUR-, AND FIVE-YEAR AVERAGE YIELDS OF GRAIN SORGHUM HYBRIDS ENTERED AT BROOKINGS, 1965-1969

Variety	Average yields, pounds per acre			
	1965-69	1966-69	1967-69	1968-69
ACCO BL 101				4510
ACCO Pawnee	4265	4455	4270	4555
Curry M-530				4980
Frontier Grassy Grain I				4305
NK 120				4820
NK 125	4410	4730	4525	4920
NK 127				4555
Pioneer 883				4355
Pioneer 894			4260	4580
RS 610	3670	3750	3455	4155
SD 441	3980	4195	4080	4090
SD 451	4290	4580	4250	4510
SD 503	4130	4290	4250	4510

TABLE 12. 1969 GRAIN SORGHUM PERFORMANCE TRIAL, AREA E, SOUTHEAST EXPERIMENTAL FARM, BERESFORD

Variety	Height, inches	Percent mositure 9/25/69	Test wt. lb/bu	Yield, lb/A
RS 633	44	32.1	61.0	7930
Frontier 388A	46	31.7	60.0	7850
Frontier 409	44	35.+	60.0	7730
ACCO Exp 7354	44	33.4	60.5	7620
RS 610	51	32.0	58.5	7620
Coop SG 20	41	31.0	61.0	7490
ACCO R 102	42	31.6	59.0	7460
Coop SG 10	45	26.9	59.5	7410
Pioneer 866	51	31.9	60.0	7370
DeKalb E-55	42	31.8	57.5	7340
ACCO R 1029	44	33.1	57.5	7320
Curry's M-530	46	30.9	59.0	7320
DeKalb C-42a	40	33.5	60.0	7170
ACCO R 1050	43	32.3	60.0	7120
NK 265	42	27.9	61.0	7120
Frontier Super 400	40	30.1	57.0	6960
Pioneer 875	44	32.3	58.5	6920
DeKalb DD-50	40	30.5	59.0	6900
NK 222	40	29.7	59.0	6850
Curry's M-540	43	31.2	59.5	6690
Pioneer 883	42	31.2	56.0	6500
SD 503	56	28.4	59.0	6330
FMC Rapido	38	30.4	59.0	6260
SD 451	54	20.0	58.0	6250
Frontier GX 410	38	32.1	57.0	6160
NK 127	38	25.4	58.0	5520
			Mean yield	7045

C.V. = 10.0%

TABLE 13. TWO-, THREE-, FOUR-, AND FIVE-YEAR AVERAGE YIELDS OF GRAIN SORGHUM HYBRIDS ENTERED IN THE AREA E TRIALS AT BERESFORD, 1965-1969

Variety	Average yield, pounds per acre			
	1965-69	1966-69	1967-69	1968-69
ACCO R 102				6880
ACCO R 1050				6375
Curry M-530				6830
DeKalb DD-50		6510	6375	6505
DeKalb E-55				7100
Frontier 388a				6765
Frontier GX 410				6005
NK 222	5775	5625	6120	6315
NK 265				6675
Pioneer 866			6690	7265
Pioneer 875				6520
Pioneer 883			6125	6310
RS 610	6340	6800	6735	7065
SD 451	5660	5965	5940	5695
SD 503	5420	5755	6030	6045

TABLE 14. 1969 GRAIN SORGHUM PERFORMANCE TRIAL, AREA D2, NORTHEAST RESEARCH FARM, GARDEN CITY UNIT

Variety	Height, inches	Percent mositure 9/24/69	Test wt. lb/bu	Yield, lb/A
DeKalb A-25	43	33.5	56.0	4890
NK X 3004	42	35.+	57.5	4640
NK 120	48	35.+	57.0	4610
SD 451	48	35.+	57.0	4580
SD 503	54	35.+	56.0	4530
Pioneer 894	36	35.+	57,5	4470
DeKalb B-32a	52	33.5	57.0	4190
Pioneer 887	36	35.+	55.0	4140
SD 441	52	33.5	55.0	4080
Coop SG10	45	35.+	57.0	4000
RS 610	51	35.+	54.0	3970
NK 127	40	35.+	56.0	3850
Frontier Grassy Grain I	45	35.+	57.0	3650
NK Mini-Milo 50A	43	33.9	58.0	3500
FMC Rapido	38	35.+	53.5	3290
			Mean yield	4160

C.V. = 11.9%

TABLE 15. 1969 GRAIN SORGHUM PERFORMANCE TRIAL, AREA D2, NORTHEAST RESEARCH FARM, GARDEN CITY UNIT

Variety	Average yields, pounds per acre			
	1965-69	1966-69	1967-69	1968-69
Frontier Grassy Grain I				3285
NK 120	3040	3230	3235	4000
NK 127				3450
Pioneer 894			2915	3870
SD 441	2795	2970	2970	3325
SD 451	2775	3025	2910	3810
SD 503	2775	2891	2880	3760

TABLE 16. 1969 GRAIN SORGHUM PERFORMANCE TRIAL, AREA C2, WILLIAM FIJALA FARM, GEDDES

Variety	Height, inches	Percent moisture 9/23/69	Test wt. lb/bu	Yield, lb/A	Yield, lb/A 1966-69	Yield, lb/A 1967-69	Yield, lb/A 1968-69
Pioneer 886	52	24.5	58.0	5410			
ACCO Ex 7354	44	28.8	61.0	5300			
RS 633	48	28.0	59.0	5020			
DeKalb C-42a	40	29.6	59.0	4950			
RS 610	45	23.5	59.0	4940	4445	4225	4065
ACCO R 1029	48	27.9	59.0	4930			
Pioneer 875	49	31.2	58.0	4920			3985
ACCO R 1050	42	24.6	59.0	4850			3810
NK 222	46	26.1	59.0	4800	4115	3855	3895
SD 503	58	18.6	58.0	4730	4125	3810	3595
ACCO Pawnee	55	20.1	60.0	4720	4285	3715	3645
Frontier GX 410	40	29.4	55.0	4680			3940
Curry's M-530	52	24.4	59.0	4550			3635
Barzan GS 33	53	25.1	57.0	4410			
Frontier Super 400	50	22.6	57.0	4380			
Curry's M-529	52	20.6	59.5	4360			
Pioneer 885	46	28.5	57.0	4220	3955	3520	3385
Barzan GS 43	52	24.0	57.0	4210			
DeKalb A-25	50	17.7	55.0	4180			
Pioneer 883	47	20.0	56.5	4170		3585	3435
Barzan GS 25	44	19.5	60.0	4160			
NK 133	46	18.8	58.0	4150	3750	3555	3585
FMC Rapido	42	24.4	57.0	4130			
Advance 14	48	24.9	55.0	4110			
NK X3004	38	17.8	57.0	3870			
Frontier 388A	45	19.5	58.5	3860			3255
Advance 55	48	26.2	57.0	3700			
SD 451	58	17.8	56.0	3400	3330	2740	2815
			Mean yield	4470			

C.V. = 12.5%

TABLE 17. ENTRIES SUBMITTED FOR THE 1969 GRAIN SORGHUM PERFORMANCE TRIALS AND THE TABLES WHERE THE RESULTS APPEAR

Company	Variety	Tables
ACCO Seeds	Pawnee	6,7,8,9,10,11,16
	R 102	12,13
	R 94	6,7,8,9
	R 920	4,5,7,8,10
	R 1050	12,13,16
	R 1029	12,16
	Exp 7354	12,14,16
	BL 101	4,5,6,8,9,10,11
Advance Seed Company	14	16
	55	16
	67-22E	4
Barzan of Minneapolis, Inc.	GS 25	16
	GS 33	16
	GS 43	16
Curry Hybrids	M-520	14
	M-580	10,11,12,13,14
	M-540	12
DeKalb AgResearch Inc.	DD-50	8,9,12,13
	A-25	4,6,8,14,16
	E-55	12,13
	B-32a	4,6,8,10,14
	C-42a	12,16
Farmland Industries, Inc.	Coop SG 10	6,12,14
	Coop SG 20	6,12
FMC Corp.	Rapido	4,6,8,10,12,14,16
Frontier Hybrids, Inc.	Super 400	12,16
	409	12
	GX 410	4,5,12,13,16
	388A	4,5,12,13,16
	Grassy Grain I	4,5,6,7,8,9,10,11,14,15
Northrup, King & Co.	NK 120	4,5,6,7,8,9,10,11,14,15
	NK 125	4,5,6,10,11
	NK 127	4,5,6,7,8,9,10,11,12,14,15
	NK 133	6,7,8,9,16
	NK 222	12,13,16
	NK 265	12,13
	NK Mini-Milo 50A	4,5,10,14
	NK x3004	4,6,8,10,14,16
Pioneer Hi-Bred Corn Company	866	8,12,13,16
	875	12,13,16
	883	6,7,8,9,10,11,12,13,16
	885	8,9,16
	887	4,6,8,10,14
	894	4,5,6,7,8,9,10,11,14,15
South Dakota Agricultural Experiment Station	RS 610	4,6,7,8,9,10,11,12,13,14,16
	RS 633	12,16
	SD 441	4,5,8,9,10,11,14,15,16
	SD 451	4,5,6,7,8,9,10,11,12,13,14,15,16
	SD 503	4,5,6,7,8,9,10,11,12,13,14,15,16