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1971 Corn Performance Trials

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Performance Trials 1971









Plant Science Department
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LISTING OF TABLES

Table No.	Contents	Page No.
1	Location of Trials	4
1 2	Laboratory Analysis and Soil Classification	4
3	Temperature and Precipitation Data	5
4	Field Methods	6
5	Harvest Methods and Moisture Determinations	7
6	1971 Area B2 (Eureka) Corn Trial	9
7	1971 Area Cl Dryland (Redfield) Corn Trial	10
8	Area B2 Averages	11
9	Area Cl Dryland Averages	11
10	1971 Area Cl Irrigated (Redfield) Corn Trial	12
11	1971 Area Dl (Whetstone Valley) Corn Trial	13
12	Area Cl Irrigated Averages	14
13	Area Dl Averages	14
14	1971 Area C2 (Geddes) Corn Trial	15
15	1971 Area D4 (Bridgewater) Corn Trial	16
16	Area C2 Averages	17
17	Area D4 Averages	17
18	1971 Area D3 (Brookings) Corn Trial	18
19	Area D3 Averages	19
20	1971 Area E (Beresford) Corn Trial	20
21	Area E Averages	21
22	Listing of all Trial Entries Map of Trial Sites - Back Cover	22 & 23

1971 Corn Performance Trials

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The relative performance of corn hybrids grown under similar environmental conditions are evaluated in this report for the 1971 season. Information in the accompanying tables includes acre grain yields in bushels per acre, moisture percentages of either ear or shelled corn at harvest, performance scores and other related information. Performance records of the corn hybrids harvested in 1971 and available two-, three-, four-, and five-year averages of yield and moisture percentages are also presented. The trials reported were conducted under the Plant Science program in Crop Performance Testing, Agricultural Experiment Station, South Dakota State University.

Location of 1971 Trials

Trials were located in the crop adaptation areas marked on the accompanying South Dakota map. The exact location of the trials and dates of seeding and harvest are included in Table 1. The soil classification, laboratory analysis of soil samples taken before or at seeding, and fertilizer applied are given in Table 2.

Weather and Climatic Conditions

Climatic data for the 1971 corn growing season, May-October, are based upon data from a U.S. Weather Bureau station reasonably near the trial. Data are presented in Table 3 for all but the Geddes site. The nearest station is about 15 miles away. At Geddes, heavy precipitation occurred shortly before seeding began and adequate rainfall continued through mid-July. Precipitation was then very limited until late August. Many entries were set back but able to resume growth when precipitation occurred. The plants appeared to be mature at harvest but the ear corn moisture was very high.

Seeding was done at normal times in most areas as the total May precipitation was often limited and either early or late in the month, thus missing the planting season. Germination was rapid but stands thinned as the cool, damp weather of early June persisted and the soil did not warm up too rapidly.

The drought that developed in the state in late July and August retarded development of tasseling, pollination and subsequent growth. The drought stresses were most severe in the south-central areas of South Dakota. In these areas the severe moisture stresses damaged plants to the extent that recovery was limited when rains occurred in September.

The assistance of the following individuals is appreciated: D. B. Shank and Q. S. Kingsley of the Plant Science Department; Albert Dittman, Lloyd Dye, Jake Fredrikson, Burton Lawrensen, Herb Lund and Albert Seer of the sub-stations; and farmer cooperators William Fijala and Clifford Hofer.

TABLE 1. LOCATION OF THE 1971 CORN PERFORMANCE TRIALS

				Date			
Area	County	Location	Post Office	Seeded	Harvested		
В2	McPherson	North Central Substation	Eureka	May 26	Oct. 26		
C1-dry	Spink	Redfield Devel. Farm, 6E	Redfield	May 27	Nov. 4		
Cl-irr	Spink	Redfield Devel. Farm, 6E	Redfield	May 27	Nov. 3		
C2	Charles Mix	Wm. Fijala Farm, 2E, 1N	Geddes	May 21	Oct. 1		
D1	Grant	Whetstone Valley Farm, 5W	Milbank	May 14	Oct. 14		
D3	Brookings	Agronomy Farm, 2 NE	Brookings	May 13	Oct. 22		
D4	McCook	Clifford Hofer Farm, 1S	Bridgewater	May 11	Oct. 4		
E	Clay	SE Experiment Farm, 7W, 3S	Beresford	May 12	Oct. 19&20		

In other areas, the adverse effect of drought was not as severe because record low temperatures prevailed across South Dakota much of the summer. These lower temperatures held back the growth of plants of tropical origin, such as corn and sorghums, and reduced the plant moisture requirements. In many areas precipitation was received sooner and in more adequate amounts and corn recovered to produce good yields. These good to excellent yields were encouraged by the long, open fall which was free of killing frosts until late October.

Moisture in the corn varied from low to quite high. The absence of freezing temperatures until late October did not benefit rapid drying of the stalk and ear. Some stalks were green and juicy when the grain was harvested in early November.

The drought created stresses that caused wide variations within populations within trials. Initial population differences (Table 4) were not significant and only means of the two combined populations are reported in the tables following this discussion.

TABLE 2. LABORATORY ANALYSIS, SOIL CLASSIFICATION AND FERTILIZER APPLIED TO THE 1971 CORN PERFORMANCE TRIALS

Fertilizer Applied	Fertilia		/A	1b	%		
N - P - K	Method	pН	K	P	0.M.	Soil Classification	Location
1b/A							
l down 10 T Manure	plowed down	6.5	682	127	3.5	Williams L	B2
i in 60 30 0	disced in	7.2	682	77	3.2	Beotia SiCl	C1-dry
i in 120 35 0	disced in	7.0	682	83	3.3	Beotia SiCl	Cl-irr.
rous 80 0 0	anhydrous	7.1	682	22	4.5	Highmore SiCl	C2
d down 68 46 0	plowed down	7.0	436	22	3.5	Peever CL	D1
d down 70 0 0	plowed down	6.7	222	32	3.4	Vienna L	D3
& starter87 21 7	anhyd & start	6.8	682	39	2.8	Clarno L	D4
d down 100 40 30	plowed down	6.5	682	51	3.5	Egan SiCl	E
i down 100 40	plowed down	6.5	682	51	3.5	Egan SiCl	E

TABLE 3. PRECIPITATION AND TEMPERATURE DATA FOR THE 1971 CORN GROWING SEASON OF SOUTH DAKOTA*

		Temper	ature, de	gree F.	Preci	pitation, i	nches
			Depar-			Depar-	
Location		Month	ture	Ave.		ture	Total
and		mean	from	depar-	Month	from	depar-
District	Month	Temp.	Normal	ture	total	normal	ture
Eureka	May	53.3	- 2.8		2.75	0.16	
Luicka	June	67.9	2.9		5.18	1.35	
В2	July	67.2	- 5.2		2.33	- 0.12	
DZ	Aug.	72.2	1.5		1.07	- 1.34	
	Sept.	59.6	- 0.5		1.51	0.19	
	_	47.8	0.2	- 0.6	2.85	1.88	2.12
	Oct.		pt. 21 -		$\frac{2.65}{15.69}$	1.00	2.12
	riist ii	LEEZE DE	pt. ZI		13.07		
Redfield 6E	May	55.3			1.45		
	June	71.5			4.55		
C1	July	M			0.42		
	Aug.	74.9			3.70		
	Sept.	60.9			2.28		
	Oct.	51.1			3.34		
			pt. 16 -	30 ^o	15.74		
Milbank	May	56.0	- 2.6		2.53	-0.35	
	June	72.5	4.7		9.30	5.53	
D1	July	69.5	- 4.7		2.19	-0.53	
	Aug.	72.2	0.0		3.20	0.33	
	Sept.	62.1	- 0.2		0.81	-1.45	
	Oct.	51.3	0.8	- 0.3	5.98	4.48	8.01
	First f	reeze Oc	t. 28 - 2	6 ⁰	24.01		
Brookings	May	52.9	- 4.7		1.13	-1.66	
	-	68.6	1.5		5.16	1.21	
2 NE	June				1.13		
D 2	July	65.9	- 7.3			-1.02	
D3	Aug.	68.6	- 2.6		3.00	0.03	
	Sept.	57.7	- 3.6	0.6	0.88	-1.15	0.10
	Oct.	48.7	- 0.8	- 2.6	3.62	2.40	-0.19
	First fi	reeze Se	pt. 16 -	28	14.92		
Bridgewater	May	58.5			2.09		
o .	June	74.0			4.39		
D4	July	71.8			2.30		
	Aug.	74.7			1.38		
	Sept.	63.3			1.20		
	Oct.	53.4			2.43		
			t. 28 - 2	8 ⁰	$\frac{2113}{13.79}$		
Centerville	May	56.5			2.11		
6 SE	June	72.3			7.20		
	July	69.9			1.97		
E	Aug.	73.0			0.87		
	Sept.	61.7			1.67		
	Oct.	53.3		_	$\frac{2.89}{16.71}$		
			et. 31 - 2				

^{* -} Based upon reports of Monthly Climatological Data, US Department of Commerce, NOAA, EDS, Office of State Climatologist, SDSU, Brookings.

Hybrid Entry Procedure

Hybrids entered are submitted by the participating commercial concerns and they designate the locations where their entries are to be grown. Hybrids registered with the South Dakota State Department of Agriculture prior to March 25, 1971 were eligible for entry. A fee was charged for each entry in each area except for entries included by Agricultural Experiment Station personnel. Either closed or open pedigree hybrids were eligible and each was allowed to be entered once in each adaptation area. A listing of the firms, with brands and varieties entered, is presented in Table 22.

Experimental Procedure

The entries included in each trial were seeded in four or more replications. The number of replications depended upon the site and populations under trial. Plots of individual hybrids were located at random within each replication. Available space, soil type and variability and other factors determine the plot size and replications. The plot size, populations and related data are presented in Table 4.

TABLE 4.	PIPID	METHODE	FOD	THE	1071	CODM	TDTAT	CITTEC
TABLE 4.	FIELD	METHODS	FOR	THE	19/1	CORN	TRIAL.	SITES

		Number of		Population		Row	
	Table	Replications	Method of	Desired or	Number	Width,	Length,
Area	No.	Harvested	Seeding	Obtained	of	inches	feet
В2	6	5	drilled	9000	1	36	39
C1-dry	7	4	drilled	10000	1	36	46
Cl-irr.	10	4	drilled	18000 ^a	1	36	46
Cl-irr.	10	4	drilled	22000 ^a	1	36	46
C2	14	5	drilled	10000	1	40	40
D1	11	4	drilled	12000 ^a	1	36	40
D1	11	4	drilled	16000 ^a	1	36	40
D3	18	4	drilled	12000 ^a	1	30	46
D3	18	4	drilled	16000 ^a	1	30	46
D4	15	4	drilled	12000 ^a	1	38	46
D4	15	4	drilled	16000 ^a	1	38	46
E	20	4	drilled	16000 ^a	1	30	39
E	20	4	drilled	20000 ^a	1	30	39

a - No significant differences between populations; means of two reported in tables

Recommended organic phosphate insecticides were used at all locations for corn rootworm control. A recommended short- residual preemergence herbicide was used at all but the D3 site where Atrazine was used.

All plots were seeded as drilled corn using cone-seeders mounted above commercial flexi-planter units with double-disc openers. The planting rate was 15% more kernels than plants desired. Plots were thinned to the desired population where it was possible or necessary. Stands were not up to desired levels at some locations, especially where excessive rainfall had occurred in early June.

TABLE 5. HARVEST METHODS AND MOISTURE DETERMINATIONS FOR THE 1971 TRIALS

		Samples Used						
		for Moisture	Moisture					
Area	Harvest method	Determinations	Determined					
В2	Hand picked	Ear sections	Oven-dried					
Cl-dry	Picker-sheller	Shelled corn	Electronically					
Cl-irr.	Picker-sheller	Shelled corn	Electronically					
C2	Hand picked	Ear sections	Oven-dried					
D1	Picker-sheller	Shelled corn	Electronically					
D3	Picker-sheller	Shelled corn	Electronically					
D4	Picker-sheller	Shelled corn	Electronically					
E	Picker-sheller	Shelled corn	Electronically					

Measurements of Performance

<u>Yield</u>. The yield reported for each hybrid is the average obtained from the yield weights of all replications, expressed as bushels per acre of No. 2 corn at 15.5% moisture. Varieties of equal potential may yield differently because of variations in slope, soil fertility and stand. Mathematical determinations have been made to ascertain whether yield differences obtained were caused by variations in environment or were true varietal differences.

Duncan's Multiple Range Test (5% level) was used to determine whether significant differences occurred. The line drawn between any two means in the 1971 entry yield data indicates that there is no significant difference between entries above that line and the top mean yield. Yields below the line are significantly less than the top mean yield of that table.

Moisture Content. The moisture content of each entry is expressed as the percentage of moisture either in the ear corn or shelled corn at the time of harvest (see Table 5). Moisture content is inversely related to maturity and, because maturity is of prime importance in South Dakota, these figures are of considerable importance in evaluating entries.

Performance Rating. Undue delays should be held to a minimum if farm operations are to be efficient and provide high economic returns. Prevention of harvest delays and reduction of additional drying costs are possible if an operator can produce sound, dry corn. Grain yield and moisture percentage are of prime importance. To the cash grain operator who does not turn livestock into the field after harvest, the more stalks standing so that the ears will go through his machinery, the higher his return per acre. Because of the importance of these three factors - yield, dry matter and upright stalks - the three results in the tables presenting this information are used to determine the rating or performance score.

The yields in each test were converted to percentages by comparing them to the mean yield of that test. Similar calculations were made for moisture and stalks broken below the ear at harvest time after first subtracting the moisture content

or stalks broken from 100% so that the varieties would be ranked according to their ability to produce sound, upright corn rather than soft, lodged corn.

The performance ratings that appear in the tables were computed as follows:

(Yield percentage x 50) + (Dry matter percent x 35) + (Percent upright stalks x 15)

Lodging. Root lodging was not a serious problem. It is presented in only one of the tables. Losses from root lodging were minimal in 1971. Stalk lodging or breaking over below the ear was quite high in several trials. The stresses created by drought, in addition to severe corn borer infestations, caused serious losses by stalk lodging. The first impression was that the broken stalks had probably been weakened by corn borers. Upon closer examination it was apparent that the stresses created on the plants by drought permitted stalk rot organisms to move in and weaken the plants. Examination of the plants at the Southeast Farm indicated that about 3 of 4 plants broken over had done so where stalk rot was very evident. Borer damage was often not even present in the stalk. The plots at Beresford had been sprayed with Sevin for first brood corn borer control.

Dropped ears were not a serious problem in any of the trials. Normally dropped ears are not counted in mechanically harvested corn. It is a penalty of machine harvest and losses are usually small.

Use of the Tables. South Dakota conditions are generally quite different from those in the mid-western Corn Belt. Most of the crop adaptation areas have conditions common to the Northern Plains: limited frost-free growing periods, limited precipitation and high summer temperatures. Corn hybrids that provide a satisfactory yield of harvestable corn that can be stored without additional costly handling are desirable. The performance score provides information on these factors in a weighted fashion.

In choosing a hybrid, first check those yielding the most. Then look for entries with below average moisture and good standability. The results will generally be similar to that of the performance score. Finally, check the performance score over a "several-year period," if available, as the average of several years is considerably more reliable than data for only one year. When planting a new hybrid the acreage should be limited until the hybrid's adaptation to the environment of the particular farm is known.

TABLE 6. CORN PERFORMANCE TRIAL, AREA B2, NORTH CENTRAL SUBSTATION, EUREKA, 1971

			Perfor-	Percent	Percent	
			mance	Moisture	Stalks	Yield,
Brand & Variety	Туре	Cross	Score	Ear Corn	Broken	B/A
SDAES SD Ex72	N	мзх	2	31.3	29.9	40.7
SDAES PP142	N	3X	1	27.0	16.4	38.8
Pioneer 3959	N	3X	3	26.8	12.2	36.3
SDAES SD Ex48A	N	4 X	4	31.7	8.8	35.5
SDAES SD 200 (X59)	N	2 X	5	27.9	11.4	34.7
SDAES PP127	N	4 X	7	29.6	15.7	32.3
SDAES PP144	N	2 X	9	27.9	13.2	31.2
SDAES PP140	N	4X	8	27.7	10.9	31.0
Sokota TS-24	T	2X	6	26.0	7.3	30.6
ACCO U 313	T	3X	14	30.0	23.3	30.5
Pioneer 3873	В	4 X	11	26.4	22.5	30.3
SDAES SD 220	T	4 X	16	26.9	30.3	30.0
Pioneer 3956	N	2X	15	29.2	16.5	29.5
Sokota MS-24	T	M2X	12	26.7	11.8	29.1
Pioneer 3872	T	4X	13	25.6	16.9	29.0
SDAES PP143	N	2 X	10	22.4	13.4	28.7
SDAES SD 230	T	4 X	19	33.5	28.4	27.6
ACCO U 323	T	3X	17	28.5	6.1	27.5
ACCO DC 140	T	4X	20	35.0	16.8	26.8
Western K-1002	T	4 X	18	23.3	31.5	26.4
Pride R-118	T	3X	23	29.8	30.0	25.4
Western KX-33	T	2X	21	30.3	6.4	23.6
SDAES PP152	N	M3X	22	27.7	12.4	23.1
Pioneer 3853	T	4X	25	28.9	25.4	21.1
Pride R-110	N	4X	26	27.5	30.8	20.2
Coop S-102	T	2X	24	29.7	4.6	19.5
Pioneer X6501	В	2 X	28	22.1	47.1	19.0
Renk R 95	В	2X	27	32.3	5.5	18.0
			Means	28.2	17.9	28.4

C.V. = 24%

TABLE 7. CORN PERFORMANCE TRIAL, AREA C1 (DRYLAND), REDFIELD DEVELOPMENT FARM, REDFIELD, 1971

			Perfor-		Percent	
			mance	Percent	Stalks	Yield,
Brand & Variety	Туре	Cross	Score	Moisture	Broken	B/A
an an an an ara	econsta to the	0.37		00.1	4.0	44.0
SDAES SD 200 (X59)	N	2 X	1	23.1	4.9	44.9
SDAES PP147	N	4 X	2	23.9	2.7	42.7
SDAES PP133	N	4 X	3	25.6	3.6	41.7
Coop S-201	T	2X	6	31.7	7.4	39.9
Pride R-290	T	2X	7	30.4	1.6	38.8
ACCO UC 1900	T	2 X	5	27.6	0.7	38.7
SDAES PP127	N	4 X	4	21.7	9.5	38.0
SDAES SD EX70	N	3X	9	27.7	2.5	37.6
SDAES PP145	N	4X	8	24.9	3.7	37.3
Western KX-55	T	2 X	11	31.5	2.6	35.6
Pioneer 3814	T	4X	10	25.8	6.3	34.6
Pioneer 3784	N	2 X	12	29.9	1.6	33.8
Curry SC-142	N	2X	15	32.4	2.5	33.3
ACCO DC 146	T	4 X	14	26.5	3.6	32.6
SDAES PP146	N	4X	13	24.7	2.6	31.9
SDAES PP112	N	мзх	16	26.6	5.2	31.1
SDAES SD 230	T	4X	18	25.8	16.2	30.9
Pride R-200A	N	3X	17	26.2	2.9	29.9
Pioneer 3853	T	4 X	19	26.1	3.4	29.7
ACCO U 333	T	3X	21	29.1	1.7	29.5
Western K-1175	T	4X	20	28.0	0.8	29.4
Pride R-269	T	3X	22	29.3	1.5	28.7
Western KX-45	T	2X	23	26.0	3.9	27.4
Western KX-33	T	2X	24	25.3	0.0	26.6
ACCO U 323	Ť	3X	25	27.8	1.9	26.5
Coop D-200	T	4X	28	31.2	6.2	25.8
SDAES SD 240	T	4X	26	26.1	3.3	25.4
SDAES SD 240 SDAES SD 250	T	4 X 4 X	26 27	26.2	3.8	24.3
Pioneer 3773	N N	2X	29	31.0	3.6	23.8
Pioneer 3773 Pioneer 3956A	N N	2 X 2 X	30	27.7	4.3	21.9
rioneer 3930A	IN	۷.۸	30	21.1	4.3	21.9
			Means	27.3	3.8	32.3

TABLE 8. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND PERCENTAGE MOISTURE AVERAGES OF HYBRIDS ENTERED IN THE AREA B2 TRIAL, 1967-1971

		Percent l	Moisture		Yield, Bushels per acre				
Brand & Variety	1967-71	1968-71	1969-71	1970-71	1967-71	1968-71	1969-71	1970-71	
Pioneer 3959		27.5	28.6	23.0		42.6	38.6	37.6	
Pioneer 3956	29.1	30.9	25.2	23.4	38.9	40.7	35.3	34.1	
Pioneer 3872	26.6	26.7	25.3	21.2	34.0	35.7	31.8	33.6	
Sokota TS-24				22.5				35.0	
SDAES SD 200(X59)	24.5	26.4	23.0	21.9	44.1	44.2	39.3	39.4	
SDAES SD 220	26.2	28.3	25.2	23.9	34.1	35.0	31.2	33.8	
SDAES SD 230	32.8	33.6	31.9	32.1	37.8	39.2	35.9	34.8	
SDAES SD Ex72		30.5	28.4	27.1		43.6	40.1	42.2	
SDAES PP127				24.4				38.2	
Western K-1002				21.4				34.2	
Western KX-33				27.5				31.0	

TABLE 9. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN AREA C1 (DRYLAND) TRIAL, 1967-1971

		Percent 1	Moisture		Yiel	d, Bushe	ls per a	cre
Brand & Variety	1967-71	1968-71	1969-71	1970-71	1967-71	1968-71	1969-71	1970-71
Coop S-201				25.4				43.6
Curry SC-142		28.8	28.2	25.9		55.8	47.5	42.8
Pioneer 3784				24.0				38.8
Pioneer 3773				24.4				34.6
Pride R-200A				21.9				41.8
Pride R-290				23.5				34.9
Pride R-369				23.9				34.0
SDAES SD 200(X59)	19.3	20.0	19.6	18.8	50.6	48.2	43.3	40.3
SDAES SD 230	23.9	23.7	22.7	21.3	49.7	48.8	42.6	38.8
SDAES SD 240	24.5	24.6	23.5	21.5	47.8	45.7	38.4	35.1
SDAES SD 250	23.2	23.7	23.2	21.3	45.3	41.5	33.6	28.1
SDAES SD Ex70			24.9	23.0			51.0	49.5
Western KX-33			22.6	20.7			39.5	31.1
Western KX-45				21.7				38.8
Western K-1175			24.8	22.9			43.6	39.7

TABLE 10. CORN PERFORMANCE TRIAL, AREA C1 (IRRIGATED), REDFIELD DEVELOPMENT FARM, REDFIELD, 1971

			Perfor-		Percent	
			mance	Percent	Stalks	Yield,
rand and Variety	Туре	Cross	Score	Moisture	Broken	B/A
CC 1/2	N	28	1	20. 4	2 0	1/6 7
urry SC-142	N	2X	1	29.4	2.8	146.7
estern KX-55	T	2X	2	30.5	2.4	141.6
cCurdy 2x4	N	2X	3	30.4	2.7	140.4
ride R-290	T	2 X	4	27.9	6.4	137.6
oop S-201	T	2X	5	30.1	1.4	136.9
CCO UC 3300	T	2X	8	30.7	2.0	134.8
DAES SD Ex70	N	3X	6	26.4	7.3	133.4
CCO UC 2900	T	2X	7	27.9	2.9	$\frac{133.7}{132.3}$
ioneer 3579	N	M2X	11	29.8	4.4	132.1
enk RK 44	В	2 X	9	28.6	3.8	131.1
cCurdy 70-4	T	2 X	12	29.2	2.2	130.1
ride R-369	T	3X	10	28.1	2.2	129.4
okota TS-67	T	2X	13	30.6	3.4	128.9
CCO U 333	T	3X	15	27.6	3.8	123.1
CCO UC 1900	T	2X	14	26.2	1.2	122.8
DAES SD Ex75	N	3X	16	25.7	12.0	120.3
DAES PP104A	N	4X	23	29.1	7.8	120.1
cCurdy MSP 333	T	3X	22	29.3	5.5	120.0
okota MS-59	T	M2X	17	26.8	2.8	118.1
DAES PP117A	N	M3X	27	28.3	4.9	117.7
Renk RK 11A	T	мзх	19	26.5	5.5	117.3
Coop T-207	T	3X	36	32.7	5.3	117.2
DAES PP117	Ŋ	M3X	21	26.8	4.9	117.0
CCO UC 2300	T	2X	18	25.7	3.2	116.9
ioneer 3773	N	2X	29	25.8	5.2	113.7
CCurdy MSP 111	T	3X	25	24.3	4.4	113.0
CCurdy MSX 22E	T	2X	26	25.3	1.2	112.9
ioneer 3956	N	2 X	28	23.7	6.4	112.3
estern KX-45	T	2X	24	24.2	1.6	112.1
ioneer 3784	Ŋ	2 X	31	26.3	0.9	112.1
DAES SD 200 (X59)	N	2 X	20	22.4	3.2	111.3
	T	4X	32	24.9	3.7	111.1
ioneer 3814						
okota TS-49	T	2X	30	25.3	1.2	111.1
D PP150	N	2X	34	27.1	2.8	110.5
DAES PP120A	N	4 X	38	28.8	2.2	109.4
ride R-200A	N	3X	33	23.9	5.8	109.4
DAES SD 250	T	4 X	37	24.4	8.8	108.3
ACCO U 323	Ť	3X	35	24.1	3.7	107.0
DAES SD 270	T	4X	39	25.4	12.7	101.3
DAES SD 240	T	4X	40	24.7	3.4	100.3
DAES PP149	N	2X	40	32.5	2.4	97.2
DALO IIIT)	14	LA	71	52.5	2.7	J L
			Means	27.3	4.1	119.9

TABLE 11. CORN PERFORMANCE TRIAL, WHETSTONE VALLEY RESEARCH UNIT, MILBANK, 1971

			Perfor-		Percent	
			mance	Percent	Stalks	Yield
Brand & Variety	Type	Cross	Score	Moisture	Broken	B/A
Pioneer 3579	N	M2X	1	27.2	2.7	108.9
Pioneer 3773	N	2X	2	27.2	1.5	107.5
Western KX-55	T	2X	4	29.2	1.4	101.4
SDAES SD Ex72	N	мзх	3	23.2	4.1	99.0
Pride R-290	T	2X	8	28.2	2.6	98.7
ACCO UC 2900	T	2X	9	28.1	2.8	98.7
SDAES SD Ex70	N	3X	7	26.6	6.5	98.7
ACCO U 333	T	3X	6	27.5	2.1	98.5
ACCO UC 1900	T	2X	5	23.8	4.2	96.4
SDAES PP151	N	4X	11	24.5	6.7	95.8
Pioneer 3784	N	2 X	12	26.6	0.3	95.5
Pioneer 3956A	N	2X	10	23.2	3.3	94.5
ACCO UC 3300	T	2 X	18	30.5	2.7	94.4
Pride R-369	T	3X	13	27.9	2.0	94.2
DAES Ex82	N	3X	17	23.5	3.5	89.0
SDAES SD 200 (X59)	N	2 X	15	20.7	10.0	89.0
SDAES SD Ex48A	N	4 X	14	22.0	2.7	88.2
Sokota TS-67	T	2 X	22	29.2	1.4	88.0
Sokota MS-59	T	M2X	20	26.4	1.7	87.8
Western KX-45	T	2 X	16	21.9	2.7	87.5
SDAES SD Ex81	N	3X	19	21.2	5.7	86.6
ACCO UC 2300	T	2 X	21	25.4	0.7	84.9
Pride 200A	N	3X	25	22.8	7.1	83.5
SDAES PP145	N	4 X	27	23.3	4.8	82.9
Renk R 95	T	3X	26	23.1	3.0	82.5
SDAES PP127	N	4X	23	21.2	2.9	81.8
Vestern K-1175	T	4X	29	24.4	6.0	81.6
Sokota 403	T	4X	30	27.2	2.4	81.5
SDAES PP147	N	4X	24	20.5	4.1	81.3
ACCO DC 230	T	4 X	31	25.2	4.5	80.2
Pioneer 3814	T	4X	28	22.5	4.8	79.9
SDAES SD 270	T	4X	33	24.9	10.3	76.4
SDAES SD 250	T	4X	32	23.0	7.6	75.6
SDAES PP112	N	M3X	34	23.4	2.3	65.7
			Means	24.9	3.8	89.2

C.V. = 14%

TABLE 12. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN AREA C1 TRIAL (IRRIGATED), 1967-1971

	A-CONTRACTOR	Percent 1	Moisture		Yiel	ld, Bushe	els per	Acre
Brand & Variety	1967-71	1968-71	1969-71	1970-71	1967-71	1968-71	1969-71	1970-71
Coop S-201				27.5				129.9
Coop T-207				29.6				104.4
Curry SC-142			28.1	27.1			144.8	139.1
McCurdy's 2x4			28.5	27.6			138.5	134.2
McCurdy's MSP 111				21.7				101.9
McCurdy's MSP 333				27.1				112.4
Pride R-200A				22.0				113.3
Pride R-290				24.9				114.0
Pride R-369				25.4				113.7
Pioneer 3773				23.5				107.3
Pioneer 3784				22.8				104.9
Pioneer 3956	23.5	22.4	21.6	20.8	112.6	110.1	110.0	105.1
SDAES SD 240	26.1	25.2	23.8	22.6	104.4	102.1	101.2	93.1
SDAES SD 250	25.9	25.1	23.3	22.1	108.8	104.5	104.6	99.0
SDAES SD 270	25.8	25.8	24.5	23.2	107.3	100.7	100.1	92.2
SDAES SD Ex70			26.3	25.2			130.2	124.1
SDAES PP117				24.1				114.1
Western KX-45				22.8				107.5
Western KX-55			25.2	27.4			121.0	125.8

TABLE 13. TWO AND THREE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA D1 TRIAL, 1969-1971

	Percent N	loisture	Yield	, B/A
Brand & Variety	1969-71	1970-71	1969-71	1970-71
Pioneer 3879		24.1		87.0
Pioneer 3773	26.0	23.6	82.9	85.9
Pioneer 3784		22.9		80.8
Sokota MS-59		22.6		78.6
Sokota TS-67		26.0		74.6
Western KX-45		20.8		74.3
SDAES SD 200 (X59)		18.3		76.6
SDAES SD 250	22.6	20.6	70.5	63.5
SDAES SD 270	24.1	21.9	60.1	60.1
SDAES SD Ex70	24.8	23.3	81.9	84.7
SDAES SD Ex72		20.6		82.7
SDAES PP127		19.3		74.0

TABLE 14. CORN PERFORMANCE TRIAL, AREA C2, WILLIAM FIJALA FARM, GEDDES, 1971

			Perfor-	Percent	Percent	Mean
		_	mance	Moisture	Stalks	Yield,
Brand & Variety	Туре	Cross	Score	Ear Corn	Broken	B/A
Pioneer 3388	N	M2X	2	39.9	0.0	45.1
SDAES PP127	N	4X	1	18.0	32.2	43.0
Coop S201	T	2X	3	29.8	19.0	42.8
SDAES SD Ex75	N	3X	5	26.0	30.1	39.5
SDAES PP147	N	4X	4	16.2	17.0	37.9
SDAES III47	N	41	7	10.2	17.0	37.9
Coop D-200	T	4 X	9	31.3	22.2	37.8
Teweles TXT 87	T	3X	6	32.4	3.4	37.4
SDAES PP124	N	M3X	7	22.0	21.1	36.1
Wilson's 1016	T	2X	10	29.9	20.0	35.4
Western KX-45	T	2X	8	22.1	4.2	33.9
ACCO U 378	N	3X	11	40.2	0.8	33.4
Western KX-55	T	2X	12	30.6	11.3	31.4
Wilson's 516	T	M2X	14	29.3	25.0	30.8
Renk R 282	T	4X	17	36.9	9.2	30.3
Bio-Research ETX 581	T	3X	16	29.5	25.0	30.0
Teweles 460	T	4 X	18	33.7	17.8	29.9
Bio-Research ESX 181	T	2X	27	37.8	28.2	29.3
Curry SC-143	N	2X	13	31.8	1.0	29.2
Teweles SXT 25	T	2X	22	32.4	24.8	29.2
SDAES SD Ex70	N	2X	23	28.6	38.7	29.1
Pioneer 3571	N	M2X	15	32.3	5.9	29.0
SDAES PP153	N	4X	19	26.7	20.2	28.0
Bio-Research EMX 381	T	M2X	20	29.5	12.8	27.9
Renk RK 44	В	2X	26	32.1	25.9	27.8
		2 X 4 X	21	22.4	30.3	27.8
SDAES PP148	N	4.X	21	22.4	30.3	21.2
SDAES PP117	N	M3X	24	22.2	35.2	26.7
ACCO UC 4600	T	2X	30	40.7	12.8	26.5
Pride R-450	N	3X	25	34.7	0.0	26.4
Curry SC-158	N	2X	28	37.8	0.0	24.6
Pioneer 3773	N	2X	32	34.8	18.0	24.3
Pioneer 3579	N	M2X	36	31.3	50.8	24.2
Pride 368	N	4X	29	32.7	6.0	23.5
Teweles TXT 80	T	3X	31	31.6	14.3	22.9
GreenAcres L18	В	4X	35	38.2	10.2	22.7
Pioneer 3390	N	M2X	3 8	43.7	1.8	22.6
SDAES SD 270	T	4 X	34	26.8	37.8	22.6
Pioneer 3570	N	2X	33	29.8	1.8	21.0
Pioneer 3594	N	2X	37	33.9	4.7	20.0
Pride R-728	N	3X	39	38.6	2.5	16.8
ACCO UC 5200	T	2X	40	37.3	10.4	16.1
			Means	31.4	16.3	29.2

TABLE 15. CORN PERFORMANCE TRIAL, CLIFFORD HOFER FARM, AREA D4, BRIDGEWATER, 1971

			Perfor-		Percent	
			mance	Percent	Stalks	Yield
Brand & Variety	Туре	Cross	Score	Moisture	Broken	B/A
Pioneer 3571	N	M2X	2	25.4	0.0	98.6
Pioneer 3390	N	M2X	6	28.1	0.6	96.6
ACCO U 378	N	3X	5	26.1	0.9	96.4
Renk RK 44	В	2X	ĺ	19.5	0.5	96.0
Pioneer 3518	N	M2X	4	24.9	0.3	95.9
McCurdy MSX 44	T	2 X	3	19.7	2.6	93.8
Pioneer 3388	N	M2X	14	27.1	0.3	93.1
ACCO UC 8500	T	2X	17	25.9	2.3	92.0
Pride R-728	N	2X	11	24.6	1.2	91.9
Curry TC-344	N	3X	8	23.1	0.6	91.8
GreenAcres L18	В	4 X	18	26.5	1.6	91.1
McCurdy 3x4	N	2X	7	20.6	0.9	90.5
ACCO UC 4600	T	2X	16	24.2	0.6	90.2
Western KX-62	T	M2X	10	20.5	2.2	89.6
Western KX-55	T	2X	9	19.9	2.9	89.6
ACCO UC 3300	T	2X	13	20.6	2.5	89.0
McCurdy 69-109	T	2X	15	20.9	3.1	88.9
1cCurdy 2x4	Ŋ	2X	12	19.7	2.9	88.4
Renk R282	T	4 X	20	23.6	0.6	88.0
Pioneer 3579	N	M2X	19	21.9	0.9	86.9
McCurdy MSP 555	T	3x	23	24.7	1.2	86.8
Wilson's 516	T	M2X	22	21.2	1.1	85.2
Curry SC-142	N	2X	21	19.7	1.7	85.1
Teweles TXT 87	T	3X	24	22.2	1.4	83.5
SDAES PP105A	N	4 X	25	22.8	1.1	83.3
Pride R-539	N	3X	27	24.0	0.3	82.7
Pride R-450	N	3X	26	21.9	1.2	82.5
SDAES PP148A	N	4 X	28	20.6	0.9	80.1
SDAES PP104A	N	4X	31	22.7	1.7	80.0
Teweles 460	T	4 X	32	21.9	3.7	79.7
Wilson's 1016	T	2 X	29	20.1	3.8	79.4
ACCO UC 5200	T	2X	35	25.9	2.6	79.3
SDAES SD Ex75	N	2X	30	19.4	5.7	78.9
SDAES PP149	N	2X	34	24.2	0.9	77.8
Pioneer 3594	N	2X	33	19.9	1.2	76.3
Pioneer 3387	N	2 X	36	26.4	0.9	73.7
SDAES SD 604	T	4X	37	22.4	4.8	69.7
SDAES PP150	N	2X	38	21.7	0.7	66.8
Teweles SXT 25	T	2X	39	22.0	2.8	60.7
Teweles TXT 80	Ť	3X	40	20.8	4.2	56.0
	-		Means	22.7	1.7	84.5

TABLE 16. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA C2 TRIAL, 1967-1971

	P	ercent M	oisture		Yiel	d, Bushe	ls per A	cre
Brand & Variety	1967-71	1968-71	1969-71	1970-71	1967-71	1968-71	1969-71	1970-71
Pioneer 3390		33.6	33.8	34.4		49.2	47.0	29.0
Pioneer 3570		26.3	25.3	24.0		46.6	43.6	28.3
Pioneer 3571				29.5				30.0
Pioneer 3579			24.8	25.1			42.7	29.3
Pioneer 3773			24.2	25.6			44.7	28.9
Pride 568				25.9				31.0
Pride R-450				25.€				34.6
SDAES SD 270	19.0	19.8	20.2	21.5	39.9	41.8	38.9	27.8
SDAES PP124				18.6				37.9
Wilson's 1016				23.5				40.4
Western KX-45				19.8				35.3
Western KX-55				25.1				36.2

TABLE 17. TWO-, THREE-, AND FOUR-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA D4 TRIALS, 1968-1971

	Per	cent Moist	ure	Yield,	Bushels per	Acre
Brand & Variety	1968-71	1969-71	1970-71	1968-71	1969-71	1970-71
Curry SC-142	18.9	16.9	18.4	68.0	77.4	84.3
Curry TC-344			21.0			86.3
McCurdy's 2x4	20.8	19.5	18.5	66.8	78.1	82.8
McCurdy's 3x4	17.6	17.3	17.8	66.4	76.3	83.1
McCurdy's 69-109			19.2			85.6
McCurdy's MSX 44			18.2			87.2
McCurdy's MSP 555			21.7			80.5
Pioneer 3387		24.9	22.5		71.1	76.9
Pioneer 3390	28.2	25.9	23.0	67.5	81.2	88.3
Pioneer 3571		22.3	21.8		78.3	90.2
Pioneer 3579			18.8			81.9
Pride R-450			18.9			78.7
Pride R-539			19.5			72.3
Pride R-728			21.2			84.0
Renk RK 44			18.0			88.9
SDAES SD 604	23.7	24.5	20.0	44.8	55.5	61.0
SDAES SD Ex75			17.1			80.9
Wilson's 1016			18.5			78.2
Western KX-55			18.4			84.4

TABLE 18. CORN PERFORMANCE TRIAL, AREA D3, AGRONOMY FARM, BROOKINGS, 1971

			Perfor-		Percent	
	_	_	mance	Percent	Stalks	Yield,
Brand & Variety	<u>Type</u>	Cross	Score	Moisture	Broken	B/A
Pioneer 3784	N	2 X	1	25.5	1.4	89.7
McCurdy 2x4	N	2X	2	27.4	5.0	86.4
SDAES SD Ex70	N	3X	5	24.5	19.9	85.3
SDAES SD Ex79	N	3X	4	25.6	10.2	84.4
Pioneer 3773	N	2X	3	27.5	1.4	84.1
SDAES PP148	N	4 X	6	23.5	13.4	82.9
Coop S-201	T	2X	8	27.1	3.1	82.3
AcCurdy 3x4	N	2X	7	25.1	4.4	81.5
SDAES SD Ex75	N	3X	9	24.1	14.3	80.7
Pioneer 3579	N	M2X	23	26.0	28.0	79.1
ACCO UC 3300	T	2X	13	27.9	6.3	78.5
	T	2X 2X	14	26.3	10.2	
McCurdy MSX 44						78.2
McCurdy 70-4	T	2X	12	27.9	2.2	77.5
ACCO UC 1900	T	2X	10	22.2	6.3	76.9
SDAES SD Ex78	N	4X	17	25.6	11.6	76.9
Vestern KX-55	T	2X	21	27.5	4.6	76.2
ACCO UC 2900	T	2X	15	25.0	7.2	75.9
Pride R-290	T	2 X	18	24.8	5.9	74.9
Sokota TS-49	T	2X	11	22.2	2.5	74.4
SDAES PP117	N	M3X	28	24.2	19.6	74.1
ACCO U 333	T	3X	19	23.9	4.6	73.9
SDAES PP151	N	4X	20	22.0	9.7	73.7
Sokota MS-59	T	M2X	16	24.1	1.8	73.6
Teweles TXT 87	T	3X	27	27.9	2.1	73.4
Renk RK 11A	T	M3X	24	25.5	4.7	73.0
ACCO UC 3301	N	2 X	29	29.4	5.2	73.0
SDAES SD Ex80	N	4X	26	23.6	10.0	72.9
Curry SC-143	N	2 X	25	26.5	1.0	72.7
Pioneer 3715	N	3X	39	25.9	24.6	71.4
Western KX-45	T	2X	22	21.0	3.2	71.1
SDAES PP104A	N	4 X	34	27.6	10.1	70.4
ACCO UC 2300	T	2X	32	24.4	9.8	70.3
Renk RK 44	В	2X	30	26.6	1.7	70.1
	T	2 X 2 X	37	27.1	11.2	69.6
Teweles SXT 25		2 X 2 X	31	23.5	9.0	69.5
SDAES PP150	N			26.2	16.0	69.4
Teweles 460	T	4X	40 36			
Coop T-207	T	3X	36 33	28.2	7.0	69.4
McCurdy MSX 22E	T	2X	33	25.0	6.6	69.2
SDAES PP104	N	4X	38	24.6	17.8	69.2
Pioneer 3956A	N	2X	41	21.8	26.1	68.5
Pride R-501	N	3X	35	26.9	4.2	67.9
Sokota SK-248	T	M3X	46	23.5	29.9	67.4
Western K-1175	T	4 X	42	23.5	13.5	66.0
Sokota TS-47	N	2X	44	24.5	17.4	66.0
Pioneer 3814	T	4X	48	21.8	23.7	64.6
Pride R-369	T	3X	43	24.7	5.0	64.3
Pioneer 3594	N	2X	45	27.8	3.7	63.9
Teweles TXT 80	T	3X	47	25.9	6.9	63.3
SDAES SD 250	T	4X	49	22.1	54.1	55.7
SDAES SD 240	T	4 X	50	24.1	45.7	54.0
SDAES SD 270	Ť	4X	51	24.0	38.9	52.2
	•	7.43	Means	25.2	11.8	72.7

TABLE 19. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA D3 TRIALS, 1967-1971

		ercent 1					ls per A	
Brand & Variety	1967-71	1968-71	1969-71	1970-71	1967-71	1968-71	1969-71	1970-71
Coop S-201			24.4	23.9			95.7	93.9
Coop T-207				26.0				82.7
McCurdy's 2x4		26.7	25.1	24.3		98.2	98.6	94.0
AcCurdy's 3x4	26.7	25.3	23.3	22.4	82.0	90.2	93.0	91.7
McCurdy's MSX 44				23.8				91.1
Pioneer 3784				22.6				99.7
Pioneer 3773	28.5	26.1	24.4	24.1	82.3	94.2	98.8	97.3
Pioneer 3715	27.7	26.2	24.4	23.8	84.2	86.3	86.2	83.2
Pioneer 3579			24.7	24.1			91.5	89.8
Pride R-290				22.0				85.6
Pride R-369				22.9				77.0
Renk RK 44				23.7				84.8
Sokota TS-47 Sokota MS-59				21.8				82.8
SDAES SD Ex70		26.0	24.4	23.3		89.3	95.9	92.9
SDAES SD Ex75		20.0	21.9	23.3		07.3	92.1	87.3
SDAES SD EX75			21.7	22.2			72.I	89.0
				23.0				84.1
SDAES PP104				23.0				04.1
SDAES SD 240	23.5	24.2	22.7	21.9	68.2	72.2	71.9	67.0
SDAES SD 250	23.5	22.9	21.2	20.6	66.9	69.9	70.1	65.3
SDAES SD 270				21.8				63.2
Vestern KX-55				24.4				89.9
Vestern KX-45				20.2				82.9

TABLE 20. CORN PERFORMANCE TRIAL, AREA E, SOUTHEAST EXPERIMENT FARM, BERESFORD, 1971

	_	_	Perfor- mance	Percent Root	Percent Stalks	Percent	Yield,
Brand & Variety	Type	Cross	Score	Lodged	Broken	Moisture	B/A
Pioneer 3388	N	M2X	1	0.0	7.9	20.5	95.3
Pioneer 3387	N	2 X	2	2.3	9.8	20.0	92.2
McCurdy 70-01	В	2X	5	0.6	24.3	19.7	90.8
Curry SC-158	N	2X	3	0.7	12.7	18.1	88.4
Pioneer 3518	N	M2X	4	0.6	6.0	19.2	85.5
Pioneer 3571	N	M2X	6	0.6	12.0	18.7	84.0
McCurdy 2x4	N	2X	7	3.9	41.0	16.9	83.4
SDAES SD Ex70	N	3X	15	11.1	59.2	17.2	82.2
Weathermaster EP-65	T	3X	11	1.0	50.5	16.4	80.3
weathermaster Er-05	1	JA	11	1.0	50.5	10.4	80.3
Curry SC-161	N	2 X	10	0.0	32.0	19.0	78.5
Pride R-601	N	3X	8	1.0	25.2	17.9	77.4
Curry SC-142	N	2 X	21	3.0	48.2	16.9	77.1
GreenAcres S60	T	2 X	19	2.7	31.6	22.8	75.7
Curry XC-157	N	2 X	18	3.6	29.6	22.6	75.0
Pioneer 3390	N	M2X	9	5.6	16.7	18.9	74.7
Sokota TS-75	T	2X	25	3.2	40.9	19.0	74.4
Pioneer 3715	N	3X	27	4.8	45.2	16.8	74.1
McCurdy 3x3	T	2 X	16	1.6	32.3	17.5	73.7
Pride R-728	N	3x	12	2.6	28.4	18.3	73.4
McCurdy 69-109	T	2X	23	1.7	39.9	17.4	73.4
McCurdy 70-4	T	2X	20	1.0	32.5	16.9	72.4
Renk R 282	T	2 X 2 X	22	2.3	35.1	17.6	72.4
	T	3X	13	0.6	24.8	18.1	72.1
McCurdy MSP 777 ACCO UC 3301	N	2X	30	1.0	44.3	17.3	71.9
	T	2 X 2 X	17	1.7	20.2	21.2	71.3
ACCO UC 8500	T	2 X 2 X	33		49.3	18.3	71.3
McCurdy 69-111 Sokota MS-84	N	M2X	32	1.3 13.0	42.5	21.1	70.7
D 1 DV //		27	1/	0.6	2/ (15 6	70 4
Renk RK 44	В	2X	14	0.6	24.6	15.6	70.4
ACCO UC 3300	T	2X	36	2.3	54.6	17.0	70.3
McCurdy MSX 44	T	2X	34	1.3	51.8	16.8	70.1
ACCO U 378	N	3X	26	5.8	20.6	23.2	70.1
Sokota SK-92	T	мзх	24	4.3	17.8	22.3	69.0
GreenAcres CH66	N	4 X	45	10.0	49.4	21.4	68.3
Western KX-55	T	2 X	43	4.3	53.8	17.1	68.3
Pride R-450	N	3X	31	2.4	35.9	17.1	68.0
GreenAcres L18	В	4X	39	3.5	38.1	21.8	66.9
Curry TC-358	N	3X	28	2.2	18.8	20.4	66.4
Curtis A201	T	2 X	46	6.1	51.0	17.3	66.1
Pride R-771	N	3X	29	1.6	19.9	19.6	65.9
GreenAcres S29	T	3X	42	0.7	34.4	22.8	65.7
ACCO UC 4600	T	2 X	44	8.0	42.3	19.6	65.5
SDAES PP148A	N	4X	35	5.1	35.8	17.4	64.7
Curtis A239	T	M2X	49	3.4	47.1	17.7	64.4
SDAES PP104A	N	4X	47	8.7	44.0	18.0	64.2
Teweles TXT 87	T	3X	41	2.6	38.3	17.5	63.9
ICHCICO IAI U/	_	JA	7-	2.0	50.5		

(Con't.)

TABLE 20. Continued

T	2 X	37	2.1	32.7	17.2	63.3
T	2 X	40	0.6	37.5	16.3	63.1
T	2 X	51	3.9	45.8	17.1	62.0
T	2 X	56	4.0	57.4	16.8	61.3
T	3X	38	1.6	22.0	18.7	60.1
В	4 X	53	9.5	35.9	21.9	60.1
T	2 X	48	2.9	35.6	16.1	60.0
Tr.	2 V	5.2	0.7	41.4	17.0	50 1
						59.1
						59.0
						59.0
						58.6
						55.5
			6.1	52.2		55.4
T	3X	60	4.7	46.5	16.9	53.2
N	3x	54	1.3	13.0	22.0	52.7
						52.4
	2 X					52.1
В	2 X					50.7
T		63				48.9
N		64				48.9
N	3X	58	3.4	21.8	18.6	48.6
T	4X	67	12.5	58.4	19.6	42.3
		Means	4.8	36.8	18.7	67.8
	тттвт ттттит ииивтии	T 2X T 2X T 2X T 3X B 4X T 2X T 2X T 2X T 2X T 3X T 2X T 3X T 3X T 3X T 2X T 3X T 3X N 4X T 3X N 3X N 2X B 2X T 3X N	T 2X 40 T 2X 51 T 2X 56 T 3X 38 B 4X 53 T 2X 48 T 2X 52 T 2X 59 T 3X 50 T 2X 57 T 4X 62 N 4X 61 T 3X 60 N 3X 54 N 3X 55 N 2X 66 B 2X 65 T 3X 63 N 2X 64 N 3X 58 T 4X 67	T 2X 40 0.6 T 2X 51 3.9 T 2X 56 4.0 T 3X 38 1.6 B 4X 53 9.5 T 2X 48 2.9 T 2X 52 0.7 T 2X 59 9.0 T 2X 59 9.0 T 3X 50 4.2 T 2X 57 12.1 T 4X 62 11.1 N 4X 61 6.1 T 3X 60 4.7 N 3X 54 1.3 N 3X 55 5.3 N 2X 66 8.6 B 2X 65 34.2 T 3X 63 11.3 N 2X 64 31.1 N 3X 58 3.4 T 4X 67 12.5	T 2X 40 0.6 37.5 T 2X 51 3.9 45.8 T 2X 56 4.0 57.4 T 3X 38 1.6 22.0 B 4X 53 9.5 35.9 T 2X 48 2.9 35.6 T 2X 52 0.7 41.4 T 2X 59 9.0 57.5 T 3X 50 4.2 29.4 T 2X 57 12.1 47.2 T 4X 62 11.1 59.1 N 4X 61 6.1 52.2 T 3X 60 4.7 46.5 N 3X 54 1.3 13.0 N 3X 55 5.3 18.9 N 2X 66 8.6 73.0 B 2X 65 34.2 65.8 T 3X 63 11.3 47.3 N 2X 64 31.1 50.7 N 3X 58 3.4 21.8 T 4X 67 12.5 58.4	T 2X 40 0.6 37.5 16.3 T 2X 51 3.9 45.8 17.1 T 2X 56 4.0 57.4 16.8 T 3X 38 1.6 22.0 18.7 B 4X 53 9.5 35.9 21.9 T 2X 48 2.9 35.6 16.1 T 2X 59 9.0 57.5 18.1 T 3X 50 4.2 29.4 19.1 T 2X 57 12.1 47.2 18.0 T 4X 62 11.1 59.1 17.2 N 4X 61 6.1 52.2 18.2 T 3X 60 4.7 46.5 16.9 N 3X 54 1.3 13.0 22.0 N 3X 55 5.3 18.9 21.4 N 2X 66 8.6 73.0 17.5 B 2X 65 34.2 65.8 18.8 T 3X 63 11.3 47.3 17.3 N 2X 64 31.1 50.7 19.9 N 3X 58 3.4 21.8 18.6 T 4X 67 12.5 58.4 19.6

C.V. = 18%

TABLE 21. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA E TRIAL, 1967-1971

1967-71	1968-71	1969-71	1970-71	1967-71	1968-71	1969-71	1970-71
	22.5	20.7	18.8		109.6	102.3	74.1
			19.1				77.6
			18.9				67.9
			18.9				71.8
	22.7	20.8	19.0		108.0	96.9	74.8
			18.2				75.5
			18.5				74.7
			18.3				70.7
			18.6				69.4
		25.3	20.5			105.7	87.5
	25.0	22.8	20.2		108.5	100.1	70.1
		22.1	20.0			100.7	73.1
20.6	21.0	19.4	17.8	106.1	99.2	90.9	69.0
			18.1				65.5
			18.9				57.3
			19.0				66.8
			18.1				66.3
			17.9				74.5
	23.9	22.3	20.2		77.7	65.8	37.7
			18.4				75.1
		22.7 25.0 20.6 21.0	22.7 20.8 22.7 20.8 25.3 25.0 22.1 20.6 21.0 19.4	22.5 20.7 18.8 19.1 18.9 18.9 22.7 20.8 19.0 18.2 18.5 18.3 18.6 25.0 22.8 20.2 22.1 20.0 22.1 20.0 19.4 17.8 18.1 18.9 19.0 18.1 23.9 22.3 20.2	1967-71 1968-71 1969-71 1970-71 1967-71 22.5 20.7 18.8 19.1 18.9 18.9 18.9 18.2 18.5 18.3 18.6 25.0 22.8 20.2 22.1 20.0 20.6 21.0 19.4 17.8 106.1 18.1 18.9 19.0 18.1 18.9 19.0 18.1 19.9 19.0 18.1 17.9 23.9 22.3 20.2	1967-71 1968-71 1969-71 1970-71 1967-71 1968-71 1968-71 22.5 20.7 18.8 109.6 19.1 18.9 18.9 22.7 20.8 19.0 108.0 18.2 18.5 18.3 18.3 18.6 18.3 25.0 22.8 20.2 108.5 20.6 21.0 19.4 17.8 106.1 99.2 18.1 18.9 19.0 18.1 19.0 18.1 17.9 17.9 23.9 22.3 20.2 77.7	1967-71 1968-71 1969-71 1970-71 1967-71 1968-71 1969-71 22.5 20.7 18.8 109.6 102.3 19.1 18.9 18.9 18.9 18.9 108.0 96.9 18.2 18.5 18.3 18.6 25.0 22.8 20.2 108.5 100.1 20.6 21.0 19.4 17.8 106.1 99.2 90.9 18.1 18.9 19.0 18.1 19.0 18.1 19.0 18.1 17.9 23.9 22.3 20.2 77.7 65.8

TABLE 22. LISTING OF 1971 HYBRID CORN ENTRIES AND TABLES WHERE RESULTS APPEAR

Company & Brand	Variety	Tables	Company & Brand	Variety	Tables
ACCO Seed	U 313	6	Farmland Industries	S-102	6,20
PO Box 9	บ 323	6,7,10	PO Box 7305	S-201	7,10,12,14,18,19
Belmond, Iowa	บ 333	7,10,11,18	Kansas City, MO	T-207	10,12,18,19
'ACCO''	บ 369	20	"Coop" 64166	D-200	7,14
	บ 378	14,15,20	-		•
	DC 140	6	Midwest Research	EPX-5P	20
	DC 146	7	Assoc., Box J,	EP-55	20
	DC 230	11	Dassel, Minn.	EP-65	20
	UC 1900	7,10,11,18	"Weathermaster"	EPX-6A	20
	UC 2300	10,11,18			
	UC 2900	10,11,18	King's Western	KX-33	6,7,8,9
	UC 3300	10,11,15,18.20	Seed Co. Rt. 2,	KX-55	7,10,11,12,14,15,16,17,1
	UC 3301	18,20	Wessington, SD	K-1175	7,9,11,18 19,20,2
	UC 4560	20	"Western"	KX-45	7,9,10,11,12,14,16,18,19
	UC 4600	14,15,20	western	K-1002	6,8
	UC 5200	14,15		KX-62	15,20
	UC 8500	15,20		KA-02	13,20
	00 0000	13,20	W.O. McCurdy &	2x4	10,12,15,17,18,19,20,21
Die Desemblites	EVC 101	14	Sons	3x3	
Bio-Research, Inc.	EXS 181 EMX 381	14		3x4	20,21
Rt. 1, Box 8,		14	Fremont, Iowa		15,17,18,19
Platte, SD	ETX 581	14	"McCurdy's"	MSX 44	15,17,18,19,20,21
01 0 0 10	0	20. 21		MSX 22E	10,18
Clay Co. Seed Co.	Curtis A201	20,21		MSP 111	10,12
222 Grand Ave.	Curtis A239	20,21		MSP 333	10,12
Spencer, Iowa	Curtis 454	20		MSP 555	15,17,20
		7 0 10 10 15 17 00 01		MSP 777	20,21
Curry Seed Co.	SC-142	7,9,10,12,15,17,20,21		69-109	15,17,20,21
Box 517	SC-143	14,18		69-111	20
Elk Point, SD	SC-158	14,20,21		70-01	20
"Curry's"	SC-161	20		70-4	10,18,20
	TC-344	15,17		70-5	20
	TC-358	20			
	XC-157	20	Wm. F. Renk &	RK 44	6,10,14,15,17,18,19,20,2
			Sons, Rt. 2,	R 95	11
GreenAcres	623	20	Sun Prairie, WI	R 282	14,15,20
Hartington, NB	L18	14,15,20	"Renk 's"	RK 11A	10,18
"GreenAcres"	S60	20			
	6374	20	Wilson Hybrids,	1016	14,15,16,17
	S29	20	Inc., Harlan, IA	1017	20
	1744	20	'Wilson's"	516	14,15
	СН66	20			

- 22

TABLE 22. (Continued)								
Pioneer Hi-Bred	3387	15,17,20,21	L. Teweles Seed Co.	SXT 25	14,15,18,20			
Corn Co.	3388	14,15,20	Box 624	TXT 80	14,15,18,20			
1206 Mulberry St.	3390	14,15,16,17,20,21	Milwaukee, WF 53201	TXT 87	14,15,18,20			
Des Moines, IA	3518	15,20	"Teweles"	460	14,15,18,20			
"Pioneer"	3570	14,16						
	3571	14,15,16,17,20,21	South Dakota	SD 200(X59)	6,7,8,9,10,11,13			
	3579	10,11,13,14,15,16,17,18,19	Agricultural	SD 220	6,8,			
	3594	14,15,18	Experiment	SD 230	6,7,8,9			
	3715	18,19,20,21	Station	SD 240	7,9,10,12,18,19			
	3773	7,9,10,11,12,13,14,16,18,1	9 "SDAES"	SD 250	7,9,10,11,12,13,18,19			
	3784	7,9,10,11,12,13,18,19		SD 270	10,11,12,13,14,16,18,19			
	3814	7,10,11,18		SD 604	15,17,20,21			
	3853	6,7		SD Ex48A	6,11			
	3872	6,8		SD Ex70	7,9,10,11,12,13,14,18,19			
	3873	6		SD Ex72	6,8,11,13			
	3956	6,8,10,12		SD Ex75	10,14,15,17,18,19			
	3956A	7,11,18		SD Ex78	18			
	3959	6,8		SD Ex79	18			
	X6501	6		SD Ex80	18			
				SD Ex81	11			
				SD Ex82	11			
Pride Company, Inc.		6						
Glen Haven, WI	R-118	6,18		CD DD10/	10.10			
"Pride"	R-200A R-290	7,9,10,11,12 7,9,10,11,12,18,19		SD PP104 SD PP104A	18,19 10,15,18,20			
	R-369	7,9,10,11,12,18,19		SD PP105A	15,20			
	R-450	14,15,16,17,20,21		SD PP112	7,11			
	R-501	18		SD PP117	10,12,14,18,19			
	R-539	15,17		SD PP117A	10			
	R-540	20,21		SD PP120A	10			
	R-601	20		SD PP124	14,16			
	R-728	14,15,17,20,21		SD PP127	6,7,8,11,13,14			
	R-771	20		SD PP133	7			
	568	14,16		SD PP140	6			
	300	_ · , _ ·		SD PP142	6			
Sokota Hybrid	403	11		SD PP143	6			
Producers	SX-92	20		SD PP144	6			
PO Drawer 197	SX-248	18		SD PP145	7,11			
Brookings, SD	MS-24	6		SD PP146	7			
"Sokota"	MS-59	10,11,13,18,19		SD PP147	7,11,14			
	MS-84	20		SD PP148	14,18			
	TS-24	6		SD PP148A	15,20			
	TS-47	18,19		SD PP149	10,15,20			
	TS-49	10,18		SD PP150	10,15,18,20			
	TS-67	10,11,13		SD PP151	11,18			
	TS-75	20		SD PP152	6			
				SD PP153	14			

