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1972 Corn Performance Trials

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Performance Trials

1972

Plant Science Department
Agricultural Experiment Station
South Dakota State University, Brookings

1972 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 1972 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 1972 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 1972 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. A new trial site was established in Area B2. The trial formerly located at Eureka was moved to the Gettysburg area. 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 1972 corn growing season, May-October, are based upon data from a U. S. Weather Bureau station reasonably near the trial. Data are presented for all but the Geddes area. The cooperators at Geddes indicated the total rainfall for the period was nearly 25 inches and distribution was favorable over the crop year.

Seeding was delayed at many trial sites by unfavorable weather. Precipitation began falling in generous amounts in mid-May and delayed farm work until early June. Germination was rapid but the cooler soil and air temperatures did not aid rapid growth after emergence. Stands were lowered at some locations because of the cooler temperatures and wet soils.

A near-drought condition developed in the north-central part of the state beginning in early July. Temperatures were not too hot for extended periods of time and the

The assistance of the following individuals is appreciated: D. B. Shank and Q. S. Kingsley of the Plant Science Department; Lloyd Dye, Burton Lawrensen, Herb Lund, and Ray Ward of the sub-stations; and cooperators William Fijala, Clifford Hofer, Larry Madsen and members of the Gettysburg School System.

TABLE 1. LOCATION OF THE 1972 CORN PERFORMANCE TRIALS

Area	County	Location	Post Office	Date	
				Seeded	Harvested
B2	Potter	Vo-Ag Farm, 1S, 1/2 E	Gettysburg	June 1	Nov. 1
C1-dry	Spink	Redfield Dev. Farm, 6E	Redfield	June 1	Nov. 6
C1-irr	Spink	Redfield Dev. Farm, 6E	Redfield	June 1	Nov. 7
C2	Charles Mix	W. Fijala Farm, 3E, 1N	Geddes	May 19	Oct. 12
D1	Grant	Whetstone Valley Farm, 5W	Milbank	June 6	Oct. 19
D3	Brookings	Agronomy Farm, 2NE	Brookings	May 16	Nov. 9
D4	McCook	C. Hofer Farm, 1S	Bridgewater	June 2	Nov. 15
E	Clay	SE Experiment Farm, 7W, 3S	Beresford	May 10	Oct. 25

Plants did quite well until late August. Plants at the B2 site (Gettysburg) appeared to be progressing toward excellent yields in early August but the absence of moisture seriously retarded development and filling of the ear.

The initial delay in seeding plus the cooler than normal temperatures retarded development at several sites. The absence of a killing frost allowed some early maturing varieties to reach physiological maturity and produce corn of good quality. Other entries, perhaps on the later maturing side for that locality when seeded at a normal date of planting, did not reach maturity and produce a quality crop. This was especially true of some entries at Bridgewater, Milbank and Redfield.

The absence of a killing frost in late September was considered quite fortunate as several longer maturity varieties in late seeded fields were permitted to reach maturity and produce good quality grain. The first killing temperatures were accompanied by rain, ice or snow in mid-October. This was followed by extended periods of fog, drizzle or just overcast days, especially at the eastern sites, and some corn actually took on moisture before harvest was possible. This was especially true at Brookings where trials of similar maturity harvested 2-3 weeks earlier than the commercial performance trials had lower average moisture in the grain.

TABLE 2. LABORATORY ANALYSIS, SOIL CLASSIFICATION AND FERTILIZER APPLIED TO THE 1972 CORN PERFORMANCE TRIALS

Area	Soil Classification	% O.M.	lb/A			Fertilizer Applied			
			P	K	pH	Method	N	P	K
B2	Agar SiL	3.0	26	682	7.0	disced in	60	13	0
C1-dry	Beotia SiCl	2.9	11	608	7.0	disced in	120	20	0
C1-irr	Beotia SiCl	3.3	83	682	7.0	disced in	120	20	0
C2	Highmore SiCl	3.3	16	682	7.4	sprayed and disced	75	(liquid)	
D1	Peever Cl	3.7	42	533	6.3	plowed down, fall	100	18	0
D3	Vienna L	3.1	72	164	6.7	plowed down, fall	70	0	0
D4	Clarno L	3.0	34	379	6.5	NH ₃ , knifed; P&K, PD	100	26	15
E	Egan SiCl	3.3	30	533	7.0	plowed down, fall	150	20	25

TABLE 3. TEMPERATURE AND PRECIPITATION DATA FOR THE 1972 CORN GROWING SEASON
IN SOUTH DAKOTA

Location and District	Month	Temperature, degree F.			Precipitation, inches		
		Month mean Temp.	Depar- ture from Normal	Ave. depar- ture	Month total	Depar- ture from normal	Total depar- ture
Gettysburg*	May	57.3			5.80	1.57	
	June	65.5			1.45	- 2.18	
B2	July	68.1			2.62	0.66	
	Aug.	70.7			0.34	- 1.50	
	Sept.	59.8			0.05	- 1.17	
	Oct.	43.8			2.16	1.27	- 1.35
		First freeze Oct. 15 - 28°			12.42		
Redfield 6E*	May	59.6			10.24		
	June	66.8			1.17		
C1	July	70.0			5.03		
	Aug.	72.1			0.06		
	Sept.	M			0.09		
	Oct.	42.3			0.50		
		First freeze Oct. 12 - 26°			17.09		
Milbank*	May	60.2	1.6		5.89		
	June	67.6	-0.2		1.42		
D1	July	71.2	-3.0		5.83		
	Aug.	73.0	0.8		1.37		
	Sept.	60.9	-1.4		0.08		
	Oct.	46.0	-4.5		1.55		
		First freeze Oct. 15 - 27°			16.11		
Brookings*	May	57.5	-0.1		9.27	6.48	
2 NE	June	64.7	-2.4		2.61	- 1.34	
	July	67.2	-6.0		5.75	3.60	
D3	Aug.	67.7	-3.5		1.75	- 1.22	
	Sept.	56.6	-4.7		2.02	- 0.01	
	Oct.	42.4	-7.1		1.87	0.65	+ 8.16
		First freeze Sept. 29 - 28°			23.27		
Bridgewater*	May	61.0			9.09		
	June	69.6			2.47		
D4	July	73.2			2.86		
	Aug.	72.7			1.93		
	Sept.	62.7			1.07		
	Oct.	47.7			1.58		
		First freeze Oct. 15 - 27°			19.00		
Centerville*	May	59.6			7.54		
6 SE	July	69.0			2.46		
	July	69.3			5.35		
E	Aug.	71.6			2.06		
	Sept.	60.0			2.19		
	Oct.	47.0			1.58		
		First freeze Oct. 15 - 21°			21.18		

*Based upon reports of Monthly Climatological Data, U.S. Department of Commerce, NOAA, EDS, Office of State Climatologist, SDSU, Brookings.

Lodging was not too serious at most sites. The trials at Redfield suffered from lodging for two reasons; one was the inherent weakness of the corn and secondly the freezing rain and subsequent ice layer that formed accelerated stalk breakage.

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 24, 1972 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. No more than eight entries from one concern could be entered at each location. A listing of the firms, with brands and varieties entered, is presented in Table 21.

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. FIELD METHODS FOR THE 1972 CORN TRIAL SITES

Area	Table No.	Number of Replications Harvested	Method of Seeding	Population Desired or Obtained	Row		
					Number of	Width, Inches	Length, Feet
B2	20	4	drilled	11,650	1	36	32
C1-dry	16	4	drilled	9,900	1	36	32
C1-irr.	14	3	drilled	16,400 ^a	1	36	29
C1-irr.	14	3	drilled	19,300 ^a	1	36	29
C2	11	4	drilled	9,900	1	40	32
D1	17	4	drilled	12,100 ^a	1	36	32
D1	17	4	drilled	14,400 ^a	1	36	32
D3	6	4	drilled	11,850	1	30	32
D3	6	4	drilled	15,450	1	30	32
D4	8	4	drilled	10,300	1	38	32
D4	8	4	drilled	12,500	1	38	32
E	10	3	drilled	15,300 ^a	1	30	31
E		3	drilled	18,500	1	30	31

^aNo 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-residue preemergence herbicide was banded over the row at seeding at all but one site. Atrazine was sprayed over the entire plot area at Brookings for grassy weed control.

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 at thinning were at desired levels at only two locations, Gettysburg and Geddes. The adverse weather caused losses greater than usually anticipated.

TABLE 5. HARVEST METHODS AND MOISTURE DETERMINATIONS FOR THE 1972 TRIALS

Area	Harvest Method	Samples Used for Moisture Determinations	Moisture Determined
B2	Picker-sheller	Shelled corn	Electronically
C1-dry	Picker-sheller	Shelled corn	Electronically
C1-irr.	Picker-sheller	Shelled corn	Oven-dried
C2	Hand picked	Ear sections	Oven-dried
D1	Picker-sheller	Shelled corn	Oven-dried
D3	Picker-sheller	Shelled corn	Electronically
D4	Picker-sheller	Shelled corn	Electronically
E	Picker-sheller	Shelled corn	Electronically

Measurements of Performance

Yield. 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 1972 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:

$$\frac{(\text{Yield percentage} \times 50) + (\text{Dry matter percentage} \times 35) + (\text{Percent upright stalks} \times 15)}{100}$$

Lodging. Root lodging was not a serious problem. Losses were minimal and not reported in the tables. Stalk lodging was rather serious at three sites. Two of the locations, Gettysburg and Beresford, were true indications of weak plants, diseases or related items that contributed to weakened stalks and plants broken over below the ear. Lodging occurred at Redfield from the same natural causes but also because a heavy layer of ice formed during a late October rain storm abetted stalk breakage.

Corn borer damage was of concern at only one location (SE Experiment Farm) and that was slight. The plants were sprayed for first brood borer control.

Dropped ears were not a 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 over "a several-year period", if available, as the average of several years is considerably more reliable than data from 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.

CROP ADAPTATION AREAS

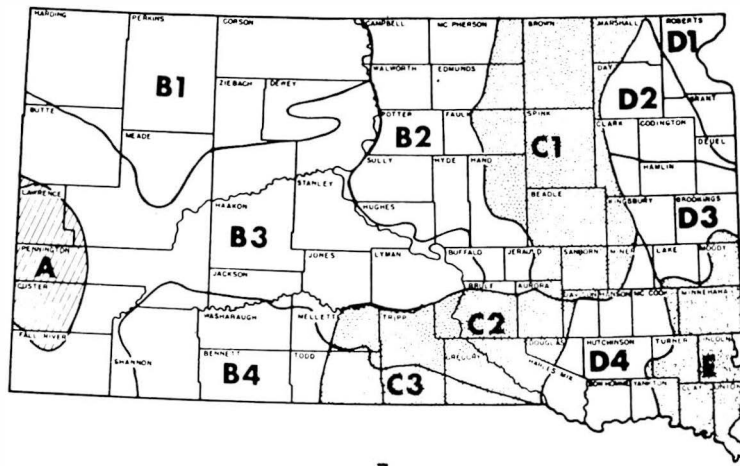


TABLE 6. CORN PERFORMANCE TRIAL, AREA D3, AGRONOMY FARM, BROOKINGS, 1972

Brand & Variety	Type	Cross	Perfor- mance Score	Percent Moisture	Percent Stalks Broken	Yield, B/A		
						Low 11800	High 15400	Mean
Earl May F 23	N	2X	2	25.3	1.5	133.6	150.2	141.9
Pride R-290	N	2X	1	23.4	2.5	131.5	149.1	140.3
Coop S-201	N	2X	3	26.0	1.5	129.9	146.4	138.2
Renk RK 44	N	2X	4	24.6	2.5	123.9	141.1	134.8
Payco SX 865	N	2X	7	25.8	2.5	127.2	140.9	134.2
Renk RK 11A	N	M3X	5	24.2	2.0	129.5	137.5	133.6
Trojan TXS 102	N	2X	8	25.6	1.5	122.7	143.7	133.2
Pioneer 3780	N	2X	6	24.0	0.5	122.8	140.3	131.6
McCurdy's 2X4	N	2X	11	26.3	0.0	125.9	133.2	129.6
Pioneer 3579	N	M2X	10	25.9	0.5	118.9	139.8	129.4
Curry's SC-146	N	2X	20	29.3	0.5	117.6	138.5	128.1
Pride R-200A	N	3X	9	22.0	1.5	117.9	137.9	128.0
Pioneer 3773	N	2X	12	24.4	0.5	118.8	136.2	127.6
Trojan TXS 104	N	2X	19	27.3	1.0	119.4	132.8	126.2
Earl May X33	N	3X	15	23.1	5.5	109.1	141.0	125.1
McCurdy's MSX 44	N	2X	22	26.8	0.5	114.0	136.1	125.1
Payco SX 775	N	3X	13	23.3	0.0	123.0	126.6	124.9
Payco 3X 783	N	3X	14	23.7	0.0	119.9	128.4	124.2
ACCO UC 3201	N	2X	26	26.9	0.5	112.4	134.5	123.5
SDAES PP150	N	2X	18	24.9	0.5	117.0	129.9	123.5
McCurdy's 36M	T	M2X	27	26.1	2.5	114.7	131.7	123.3
ACCO UC 3300	T	2X	36	26.6	4.4	115.8	129.8	122.9
Pioneer 3781	N	M2X	31	24.7	4.5	119.3	124.7	122.0
Disco SX 14	T	2X	17	23.2	0.5	104.5	138.8	121.7
Cargill X19324	N	2X	24	23.4	2.5	119.4	124.0	121.7
McCurdy's 71-214	T	2X	30	25.2	1.5	109.6	133.7	121.7
P-A-G SX 67	N	2X	16	21.9	1.0	116.5	126.2	121.4
Earl May X32	N	2X	21	22.4	3.5	118.3	124.4	121.4
Western KX 55	N	2X	33	26.0	0.5	107.1	135.3	121.2
McCurdy's 3X4	N	2X	23	22.8	2.0	120.3	121.3	120.9
SDAES EX 83	N	4X	29	24.4	1.5	115.8	125.7	120.9
ACCO DC 393	T	4X	25	23.7	1.5	115.9	124.9	120.4
SDAES EX 70	N	3X	38	25.5	2.0	115.6	123.9	119.8
ACCO U 333	T	3X	37	24.0	3.2	114.9	123.3	119.1
Trojan TXS 94	N	2X	28	22.8	0.5	113.2	124.4	118.8
Pioneer 3784	N	2X	32	23.3	1.0	109.4	127.6	118.6
Trojan TXS 107	N	2X	48	26.8	1.0	107.8	128.9	118.4
Pride R-369	N	3X	39	24.2	1.5	104.6	131.5	118.1
Earl May 2095	N	3X	44	25.6	1.5	107.5	128.1	117.8
P-A-G SX 240	N	2X	35	22.2	3.0	110.0	125.3	117.7
Sokota MS-59	B	M2X	34	23.0	0.5	105.2	130.0	117.7
McCurdy's 3X3E	N	2X	43	25.1	1.0	102.8	131.9	117.4
SDAES PP165	N	4X	51	26.9	1.5	109.0	125.4	117.3
Coop T-207	N	3X	59	29.6	2.5	104.1	128.2	116.2
McCurdy's 69-15A	N	2X	50	25.4	1.0	109.4	121.6	115.6
SDAES EX 84	N	3X	42	23.0	1.5	110.8	119.9	115.4
Trojan TX 100	N	3X	41	22.5	0.5	106.4	123.8	115.2
Trojan TXS 99	N	2X	45	22.5	4.0	102.9	127.2	115.2
Pioneer 3932	N	2X	40	21.9	1.5	106.8	123.2	115.0
SDAES PP164	N	4X	54	25.5	2.5	115.1	114.6	114.9

TABLE 6. Continued

ACCO UC 2900	T	2X	46	23.3	1.0	105.9	123.6	114.8
ACCO UC 2700	T	2X	49	23.6	1.0	108.5	120.5	114.5
ACCO UC 1900	T	2X	47	21.8	4.0	105.8	122.3	114.1
Disco 1020	T	4X	52	23.5	2.0	110.6	116.1	113.4
ACCO U 343	N	3X	50	27.5	2.0	108.2	119.2	113.2
Cargill 425	N	3X	53	21.8	2.0	105.3	117.1	111.3
Trojan M95	N	M3X	56	22.3	2.9	102.7	119.6	111.2
Trojan TX 90	N	3X	55	21.9	2.0	109.3	111.9	110.7
Pioneer 3778	N	3X	57	24.8	0.0	105.3	115.7	110.5
SDAES PP137	N	2X	61	25.4	2.0	102.0	117.2	109.7
Pioneer 3727	N	3X	62	26.0	1.5	103.2	115.8	109.5
SDAES EX 86	N	3X	58	23.3	1.5	103.4	114.5	109.0
Curry's SC-138	N	2X	63	22.3	7.0	104.7	107.3	106.1
Sokota SK-54	N	3X	64	22.7	1.5	94.0	114.3	104.2
SDAES SD 250	N	4X	65	22.7	5.9	97.6	107.2	102.5
Disco SP 135	T	3X	66	21.6	3.0	93.8	103.1	98.5
SDAES EX 85	N	4X	67	22.1	1.5	93.2	101.9	97.6
SDAES PP144	N	2X	68	21.1	1.0	66.9	87.2	77.1
Means				24.3	1.9	111.6	126.4	119.1

C.V. - 8.2%

TABLE 7. TWO-, THREE-, FOUR-, AND FIVE-YEAR AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA D3 TRIALS, 1968-1972

Brand & Variety	Percent Moisture				Yield, Bushels per Acre			
	1968-72	1969-72	1970-72	1971-72	1968-72	1969-72	1970-72	1971-72
ACCO U 333				23.9				96.5
ACCO UC 1900				22.0				95.5
ACCO UC 2900				24.1				95.3
ACCO UC 3300				27.2				100.7
Coop S-201		24.8	24.6	26.5		106.3	108.6	110.2
Coop T-207			27.2	28.9			93.8	92.8
McCurdy's 2X4	26.6	25.4	24.9	26.8	104.4	106.3	105.8	108.2
McCurdy's 3X4	24.8	23.1	22.5	23.9	96.3	99.9	101.4	101.2
McCurdy's MSX 44			24.8	26.5			102.4	101.6
Pioneer 3579		25.0	24.7	25.9		101.0	103.0	104.2
Pioneer 3773	25.7	24.4	24.2	25.9	100.8	106.0	107.4	105.8
Pioneer 3784			22.8	24.4			106.0	104.1
Pride R-290			22.4	29.1			103.8	107.6
Pride R-369			23.3	24.4			90.7	91.2
Renk RK 11A				24.8				103.3
Renk RK 44			24.0	25.6			101.4	102.4
Sokota MS-59			22.2	23.5			94.4	95.6
SDAES SD 250	22.9	21.5	21.3	22.4	76.4	78.2	77.7	79.1
SDAES EX 70	25.9	24.7	24.0	25.0	95.4	101.8	101.8	102.5
SDAES PP150				24.2				96.5
Western KX 55			24.9	26.7			100.3	98.7

TABLE 8. CORN PERFORMANCE TRIAL, CLIFFORD HOFER FARM, AREA D4, BRIDGEWATER, 1972

Brand & Variety	Type	Cross	Perfor- mance Score	Percent Moisture	Percent Stalks Broken	Yield B/A		
						10300	12500	Mean
Pioneer 3388	N	M2X	4	33.6	0.0	107.6	106.5	107.1
Trojan TXS 102	N	2X	1	24.9	1.3	102.5	106.0	104.3
SDAES EX 93	N	4X	8	32.3	7.6	94.1	111.7	103.0
SDAES PP104A	N	4X	2	26.6	0.5	97.2	108.2	102.8
Earl May F 23	N	2X	3	26.2	1.3	98.4	106.0	102.3
Earl May X33	N	3X	5	23.9	2.6	103.1	95.2	99.2
McCurdy's 3X4	N	2X	6	23.5	1.7	92.9	104.0	98.5
McCurdy's MSP 333	N	3X	7	26.1	0.8	100.1	96.3	98.3
Pioneer 3517	N	M2X	12	31.5	0.0	95.7	93.9	94.8
Pioneer 3520	N	3X	16	30.9	0.0	88.9	98.3	93.7
McCurdy's 3X3E	N	2X	10	26.8	0.9	91.5	93.8	92.7
Earl May X32	N	2X	9	22.8	0.9	89.0	96.2	92.6
Pride R-501	N	3X	11	26.7	1.3	89.0	94.7	91.9
ACCO U 378	N	3X	24	32.5	0.8	91.1	91.8	91.5
Wilson 1016	N	2X	13	26.9	2.2	96.7	86.1	91.5
Disco SP 170	T	3X	20	30.7	0.5	90.3	92.4	91.4
Wilson 516	T	M2X	15	27.6	0.8	89.4	92.8	91.2
Curry's TC-342A	N	3X	14	27.3	1.3	89.0	93.1	91.1
Trojan TXS 104	N	2X	18	27.6	0.5	92.1	89.4	90.8
SDAES PP162	N	4X	19	25.6	3.8	86.0	93.8	90.0
Curry's TC-344A	N	3X	21	30.2	0.4	92.7	86.9	89.9
McCurdy's 3X3	N	3X	27	31.6	1.3	94.5	84.5	89.6
SDAES SD 604	T	4X	23	28.2	6.6	89.1	89.8	89.5
Pioneer 3390	N	M2X	32	32.2	0.0	84.4	92.1	88.3
Trojan TXS 94	N	2X	17	23.2	0.9	84.5	90.1	87.4
Pride R-450	N	3X	28	29.3	1.9	85.9	88.5	87.2
Payco SX 1093	N	2X	37	32.9	1.4	87.7	84.6	86.2
ACCO UC 3300	T	2X	30	28.0	1.9	75.1	96.4	85.8
ACCO DC 441	N	4X	29	27.5	2.0	77.9	93.3	85.7
McCurdy's 71-440	T	2X	25	25.7	0.9	78.7	92.1	85.4
Trojan TXS 99	N	2X	22	23.4	1.0	83.9	84.7	84.4
Earl May 2095	N	3X	33	26.7	1.9	79.1	89.4	84.3
McCurdy's 2X4	N	2X	31	26.4	0.5	75.2	92.8	84.1
McCurdy's MSP 555	N	3X	39	32.3	2.6	79.0	88.9	84.0
Trojan TX 90	N	3X	26	21.9	0.5	78.2	85.5	81.9
Trojan TX 104	N	3X	35	26.7	1.0	89.7	73.8	81.8
Western KX 55	T	2X	34	24.9	1.7	79.1	84.2	81.7
Pioneer 3498	N	4X	41	31.0	0.9	76.7	85.6	81.2
Renk RK 44	N	2X	36	26.4	1.5	78.7	83.3	81.0
Renk RK 66	N	2X	42	30.6	0.4	74.2	87.1	80.7
Pride R-728	N	3X	48	33.5	1.7	76.2	83.9	80.1
Pride R-601	N	3X	43	31.3	0.9	71.3	88.4	79.9
ACCO UC 3600	T	2X	46	32.2	0.9	72.5	87.2	79.9
ACCO U 348	N	3X	40	27.2	1.4	74.1	82.4	78.3
Trojan TX 100	N	3X	38	24.1	0.9	68.9	85.5	77.2
Disco SX 17	T	2X	45	28.7	0.5	63.7	90.3	77.0
Payco SX 986	N	2X	44	28.1	1.1	73.9	79.9	76.9
SDAES PP157	N	2X	50	30.7	1.0	68.3	82.3	75.4
SDAES EX 70	N	3X	47	26.3	4.6	83.0	67.7	75.4

TABLE 8. CONTINUED

Brand & Variety	Type	Cross	Perfor- mance Score	Percent Moisture	Percent Stalks Broken	Yield, B/A		
						10300	12500	Mean
McCurdy's MSX 44	N	2X	49	26.3	0.0	77.2	66.6	72.0
ACCO U 343	T	3X	51	27.7	2.2	70.2	73.6	72.0
Curry's SC-146	N	2X	53	30.4	0.0	65.0	76.2	70.7
ACCO UC 4600	T	2X	55	32.6	0.6	64.4	69.3	66.9
Trojan TXS 85	N	M2X	52	20.4	2.0	73.1	56.2	64.7
SDAES PP155	N	2X	56	27.4	1.1	58.0	65.2	61.7
ACCO TGG 678	T	4X	58	33.1	1.7	56.6	66.3	61.5
Pioneer 3579	N	M2X	54	25.7	0.0	61.7	60.9	61.4
Pioneer 3571	N	M2X	57	26.8	0.7	66.5	53.6	60.1
			Means	28.1	1.4	81.7	86.8	84.3

C.V. = 15.5%

TABLE 9. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA D4 TRIALS, 1968-1972

Brand & Variety	Percent Moisture				Yield, Bushels per Acre			
	1968-72	1969-72	1970-72	1971-72	1968-72	1969-72	1970-72	1971-72
ACCO U 378				29.3				93.9
ACCO UC 3300				24.3				87.4
ACCO UC 4600				28.4				78.5
McCurdy's 2X4	21.9	21.2	21.1	23.0	70.2	79.6	83.2	86.2
McCurdy's 3X4	18.8	18.8	19.7	22.0	72.8	81.9	88.2	94.5
McCurdy's MSX 44			20.9	23.0			82.1	82.9
McCurdy's MSP 555			25.3	28.5			81.6	85.4
Pioneer 3388				25.3				100.1
Pioneer 3390	29.0	27.5	29.4	30.1	71.7	83.0	88.3	92.4
Pioneer 3571		23.6	23.5	26.1		73.7	80.2	79.3
Pioneer 3579			21.1	23.8			75.1	74.1
Pride R-450			22.4	25.6			81.5	84.8
Pride R-728			28.6	29.0			82.7	86.0
Renk RK 44			20.8	22.9			85.9	88.5
SDAES SD 604	24.6	22.9	22.7	25.3	53.7	64.0	70.5	79.6
SDAES PP104A				24.6				91.4
Wilson's 516				24.4				88.2
Wilson's 1016			21.3	23.5			82.6	85.4
Western KX 55			20.6	22.4			83.5	85.6

TABLE 10. CORN PERFORMANCE TRIAL, AREA E, SOUTHEAST EXPERIMENT FARM, BERESFORD, 1972

Brand & Variety	Type	Cross	Perfor- mance Score	Percent Moisture	Percent Stalks Broken	Yield B/A
Cargill 930	N	M2X	3	23.2	8.8	171.3
Curry's SC-159	N	2X	4	23.3	9.6	169.8
McCurdy's 69-111	N	2X	1	20.7	0.5	167.1
Trojan TXS 111	N	2X	2	21.3	0.5	166.2
Curry's SC-160A	N	2X	5	24.1	0.0	161.7
Trojan TXS 113	N	M2X	6	23.1	2.7	160.4
Sokota TS-75	N	2X	11	24.1	13.7	156.2
McCurdy's MSX 67	N	2X	7	21.1	5.0	156.1
P-A-G 344	N	3X	8	22.8	0.6	154.1
Sokota TS-85	N	2X	10	25.2	3.8	154.0
Pride R-771	N	3X	9	22.0	4.5	151.7
Pioneer 3387	N	2X	12	24.5	2.2	150.6
Payco SX1093	N	2X	14	20.3	13.3	150.3
Wilson 1017	N	2X	24	21.0	22.2	148.0
Curry's TC-358B	N	3X	21	22.8	13.6	147.5
Pioneer 3517	N	M2X	15	22.0	3.2	147.2
Embros X2	N	2X	13	19.6	5.0	145.8
O's Gold SX 2102	N	2X	16	19.7	5.3	145.3
McCurdy's 71-5	N	2X	23	21.7	11.5	145.0
Trojan TXS 115	N	2X	33	25.5	12.0	145.0
Earl May F25	N	2X	29	21.8	11.1	142.5
Pioneer 3390	N	M2X	17	21.9	1.8	142.4
Pride R-728	N	3X	31	21.9	14.1	142.0
Pioneer 3388	N	M2X	25	23.6	1.7	141.7
Curtis A201	N	2X	20	19.4	6.5	140.8
Disco SX 17	T	2X	19	19.4	5.4	140.4
Fontanelle F 440	N	2X	34	19.1	21.7	140.1
Cargill 456	N	3X	35	21.5	15.8	140.0
Sokota MS-84	N	M2X	47	22.9	24.0	139.5
Pride R-450	N	3X	22	19.4	4.5	139.3
P-A-G SX 56	N	M2X	32	23.8	2.7	139.0
Trojan TXS 102	N	2X	27	19.0	9.4	139.0
ACCO UC 4601	N	2X	39	22.9	12.6	138.8
Renk RK 44	N	2X	18	18.9	2.2	138.8
Disco SP 170	T	3X	42	21.1	24.6	138.6
Curry's SC-146	N	2X	44	21.6	23.1	138.0
Payco SX 986	N	2X	28	19.5	6.2	137.7
ACCO U 378	N	3X	41	23.5	8.9	137.4
Pioneer 3520	N	3X	30	21.4	1.6	137.3
McCurdy's 2X4	N	2X	26	19.1	4.4	137.2

TABLE 10. CONTINUED

Brand & Variety	Type	Cross	Performance Score	Percent Moisture	Percent Stalks Broken	Yield B/A
McCurdy's MSP 3X3	N	2X	40	20.7	13.8	136.6
Earl May F23	N	2X	38	19.3	11.3	134.0
Curry's TC-344A	N	3X	37	22.8	1.6	133.9
ACCO TGG 678	T	4X	53	23.4	18.0	133.9
McCurdy's MSX 55A	N	2X	36	21.1	2.8	133.2
ACCO TGG 10	T	4X	54	23.3	15.2	131.9
Earl May 2095	N	3X	43	19.7	9.3	129.7
SDAES PP167	N	3X	46	22.4	2.3	129.2
Wilson's 1016	N	2X	45	19.5	7.8	128.6
Pioneer 3715	N	3X	51	19.7	8.1	127.5
Trojan TXS 104	N	2X	55	21.4	12.0	127.3
McCurdy's 71-313	T	2X	59	20.3	18.3	126.9
Western KX 55	T	2X	48	19.5	4.9	126.8
ACCO UC 3600	T	2X	52	20.6	4.9	126.5
Fontanelle F 400	N	2X	49	18.7	6.3	126.2
Trojan TXS 109	N	2X	50	21.2	0.6	125.9
O's Gold SX 2145	N	2X	58	21.4	11.8	125.9
Pioneer 3571	N	M2X	57	19.7	13.7	125.7
McCurdy's MSP 777	N	3X	56	20.6	10.6	125.4
SDAES PP162	N	4X	62	18.3	19.3	122.4
ACCO UC 3300	T	2X	64	19.1	18.4	121.9
ACCO DC 441	N	4X	67	20.4	9.3	120.7
Embros R-110	T	4X	65	20.1	9.3	118.7
ACCO U 348	N	3X	71	20.1	20.3	118.7
Trojan TXS 94	N	2X	61	18.7	8.7	118.5
SDAES PP157	N	2X	66	22.9	1.7	117.9
Earl May X 33	N	3X	73	18.7	26.8	117.7
Earl May X 32	N	2X	63	18.1	9.1	116.7
Coop S-102	N	2X	60	18.7	4.5	116.6
SDAES EX 93	N	4X	77	23.2	39.3	115.1
Pride R-501	N	3X	68	18.3	10.1	113.5
Earl May 988	N	4X	74	18.9	17.9	113.1
Pioneer 3727	N	3X	69	20.5	2.3	112.3
Embros 3 W-105	N	3X	75	18.9	17.2	112.3
Curtis 457	N	2X	70	18.7	8.1	111.8
Trojan TXS 99	N	2X	72	18.0	5.8	107.6
SDAES PP115	N	2X	76	21.8	7.8	104.4
SDAES EX 70	N	3X	79	21.6	43.1	95.1
SDAES SD 604	T	4X	80	22.1	45.8	90.6
Pride R-601	N	3X	78	19.8	20.7	90.4
			Means	21.1	10.9	133.4

C.V. = 10.7%

TABLE 11. CORN PERFORMANCE TRIAL, AREA C2, WILLIAM FIJALA FARM, GEDDES, 1972

Brand & Variety	Type	Cross	Perfor- mance Score	Percent Moisture Ear Corn	Percent Stalks Broken	Yield B/A
ACCO U 378	N	3X	6	31.2	1.0	118.8
Pioneer 3571	N	M2X	1	21.0	0.0	116.1
Trojan M110	N	M3X	2	23.5	0.0	115.7
Pride R-450	N	3X	3	23.7	0.9	114.9
Coop S-201	N	2X	4	25.9	0.0	114.6
Wilson 1016	N	2X	5	26.1	0.0	114.2
Pioneer 3390	N	M2X	14	30.7	0.0	111.1
Trojan TXS 102	N	2X	7	25.2	2.2	110.1
Curry's SC-159	N	2X	21	31.7	1.0	109.9
O's Gold SX 1100	N	2X	8	25.3	1.9	109.8
Pioneer 3498	N	4X	18	30.1	0.0	109.7
Trojan TX 104	N	3X	16	25.6	2.0	109.0
Trojan TXS 108	N	M2X	9	24.8	3.2	108.6
ACCO U 348	N	3X	12	26.9	1.1	108.3
ACCO UC 3600	T	2X	22	30.1	1.0	107.7
Western KX 55	T	2X	11	24.7	0.0	107.0
Pioneer 3388	N	M2X	29	32.6	0.0	106.8
Trojan TXS 104	N	2X	16	26.3	0.0	106.6
Trojan TXS 107	N	2X	23	28.1	0.9	105.7
Coop D-200	N	4X	17	25.0	1.0	105.3
Curry's SC-144	N	2X	13	22.9	2.2	104.4
ACCO DC 441	N	4X	25	27.5	2.1	104.1
ACCO UC 3300	T	2X	15	23.1	0.0	103.8
Wilson 516	N	M2X	20	23.6	2.9	103.3
Trojan TXS 109	N	2X	27	30.0	1.0	102.5
Pride R-501	N	3X	19	23.2	0.0	102.5
Pioneer 3579	N	M2X	24	25.2	2.0	102.4
O's Gold SX 2145	N	2X	29	29.0	0.0	100.3
Pride R-601	N	3X	28	27.9	0.0	100.0
Trojan TX 110	N	3X	35	31.9	4.3	97.4
ACCO U 343	T	3X	30	24.4	2.1	95.7
Pioneer 3517	N	M2X	34	28.0	0.0	95.0
Pioneer 3727	N	3X	32	25.5	0.0	94.7
Curry's TC-358A	N	3X	41	34.0	1.1	94.7
ACCO DC 393	T	4X	31	23.2	4.5	94.6
ACCO TGG 10	T	4X	37	32.0	0.0	94.5
Pioneer 3520	N	3X	40	29.4	0.0	90.2
SDAES PP124	N	4X	38	20.4	0.0	83.1
SDAES PP147	N	3X	33	12.5	0.0	80.6
SDAES SD 250	T	4X	43	19.3	2.2	79.2
SDAES PP127	N	4X	42	16.4	0.0	76.1
SDAES PP142	N	3X	36	11.1	2.1	75.9
SDAES PP154	N	3X	39	12.1	0.0	74.2
			Means	25.4	1.0	101.3

C.V. = 10.2%

TABLE 12. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA C2 TRIAL, 1968-1972

Brand & Variety	Percent Moisture				Yield, Bushels per Acre			
	1968-72	1969-72	1970-72	1971-72	1968-72	1969-72	1970-72	1971-72
ACCO U 378				35.7				76.1
COOP D-200				28.1				71.5
COOP S-201				27.8				78.7
Pioneer 3388				36.2				75.9
Pioneer 3390	33.0	33.0	33.2	37.2	61.6	63.0	56.4	66.8
Pioneer 3571			26.7	26.6			58.7	72.5
Pioneer 3579		24.9	25.1	28.2		57.6	53.7	63.3
Pride R-450			25.0	29.2			61.3	70.6
SDAES PP124			19.2	21.2			53.0	59.6
SDAES PP127				17.2				59.5
SDAES PP147				14.3				59.2
Wilson 516				26.4				67.0
Wilson 1016			24.4	28.0			65.0	74.8
Western KX 55			25.0	27.6			59.8	69.2

TABLE 13. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA E TRIAL, 1968-1972

Brand & Variety	Percent Moisture				Yield, Bushels per Acre			
	1968-72	1969-72	1970-72	1971-72	1968-72	1969-72	1970-72	1971-72
ACCO U 378				22.1				103.7
ACCO UC 3300				18.1				96.1
COOP S-102				17.4				88.3
Curtis A 201			19.1	18.3			92.2	103.4
McCurdy's 2X4	22.0	20.4	19.0	18.1	113.8	106.9	95.6	110.3
McCurdy's 3X3			19.0	19.1			95.9	105.1
McCurdy's MSP 777			19.1	19.3			88.9	98.7
McCurdy's 69-111				19.5				119.1
Pioneer 3387		25.1	21.8	22.2		116.9	108.5	121.4
Pioneer 3388				22.1				118.5
Pioneer 3390	24.4	22.6	20.8	20.4	115.3	110.6	94.2	108.5
Pioneer 3571		21.5	19.9	19.2		96.5	76.7	104.8
Pioneer 3715	20.7	19.5	18.4	18.3	104.9	100.0	88.5	100.8
Pride R-450			18.5	18.2			90.1	103.6
Pride R-601				18.8				83.9
Pride R-728			20.0	20.1			91.8	107.7
Pride R-771				20.8				108.8
Renk RK 44			18.4	17.2			90.4	104.6
Sokota TS-75				21.5				115.3
Sokota MS-84				22.0				105.1
SDAES SD 604	23.5	22.2	20.8	20.8	80.3	72.0	55.3	66.4
SDAES EX 70			19.1	19.4			81.3	88.6
Western KX 55			18.7	18.3			92.3	97.5
Wilson's 1017				18.6				105.5

TABLE 14. CORN PERFORMANCE TRIAL, AREA C1 (IRRIGATED), REDFIELD DEVELOPMENT FARM, REDFIELD, 1972

Brand & Variety	Type	Cross	Perfor- mance Score	Percent Moisture	Percent Stalks Broken	Yield, B/A
Trojan TXS 104	N	2X	1	32.9	11.3	116.3
Pride R-200A	N	3X	2	28.4	14.8	109.6
Renks RK 44	N	2X	3	32.1	4.3	109.6
Disco SX 16	T	2X	5	32.2	3.9	107.6
Trojan TXS 99	N	2X	6	28.2	4.4	103.7
ACCO UC 1900	T	2X	4	26.1	7.6	103.4
Pioneer 3932	N	2X	7	24.6	17.9	103.0
Disco SX 14	T	2X	10	28.3	25.8	103.0
Pride R-290	N	2X	9	29.3	18.6	102.7
Pioneer 3781	N	M2X	11	30.1	7.3	97.8
ACCO U 333	T	3X	16	28.1	25.8	97.7
McCurdy's MSP 333	N	3X	12	29.6	9.2	97.3
Payco SX 775	N	2X	14	27.5	18.8	97.1
Pioneer 3780	N	2X	13	29.0	8.3	95.6
Pioneer 3956A	N	2X	8	23.4	2.8	95.5
Trojan TXS 94	N	2X	15	26.9	14.7	95.2
Curry's SC-144	N	2X	20	34.5	4.3	94.5
Curry's SC-142	N	2X	23	33.4	9.9	94.0
ACCO UC 3201	N	2X	21	33.8	4.5	93.6
SDAES EX 70	N	3X	35	29.9	29.7	93.3
Sokota TS-62	N	2X	41	29.7	35.9	93.0
McCurdy's 2X4	N	2X	22	32.6	5.7	92.4
Pride R-369	N	3X	19	30.0	5.3	91.7
ACCO UC 2900	T	2X	24	30.0	13.9	91.7
Trojan TXS 102	N	2X	27	31.8	10.7	91.6
Western KX 55	T	2X	25	32.4	5.0	91.0
ACCO UC 1301	N	2X	18	27.1	7.4	90.0
Western KX 46	N	M2X	30	27.4	20.9	89.6
ACCO UC 3300	T	2X	38	33.7	7.6	89.3
SDAES PP158	N	2X	42	30.9	20.5	89.2
McCurdy's MSP 111	T	3X	33	26.6	25.0	89.1
Coop T-207	N	3X	43	35.2	7.2	88.9
Pioneer 3778	N	3X	28	29.6	9.1	88.6
Trojan TX 90	N	3X	17	24.4	9.9	88.4
Trojan M95	N	M3X	31	26.7	19.2	88.3
Coop S-201	N	2X	34	32.1	6.9	88.2
Renks RK 9	N	2X	37	28.5	17.8	87.9
Trojan TX 100	N	3X	26	26.5	13.4	87.7
SDAES PP156	N	2X	32	29.5	8.1	86.7
Curry's SC-138	N	2X	29	26.5	8.2	85.1
SDAES SD 200	N	2X	40	23.9	21.7	84.7
Pioneer 3784	N	2X	36	27.4	8.0	84.0
McCurdy's 69-15A	N	2X	47	30.2	23.2	83.9
Renks RK 11A	N	M3X	48	28.4	27.3	83.4
Payco SX 865	N	2X	45	32.6	2.5	82.4
SDAES PP155	N	M3X	49	31.5	14.4	82.1
Trojan TXS 85	N	M2X	39	23.3	14.4	82.0
McCurdy's MSX 22E	T	2X	44	27.9	12.3	82.0

TABLE 14. CONTINUED

Brand & Variety	Type	Cross	Performance Score	Percent Moisture	Percent Stalks Broken	Yield, B/A
ACCO UC 2700	T	2X	46	28.3	19.2	81.6
SDAES PP157	N	2X	51	36.8	3.2	78.8
SDAES SD 230	N	4X	52	28.2	24.9	77.3
SDAES SD 250	T	4X	56	30.7	26.2	74.9
Pioneer 3579	N	M2X	53	32.4	5.6	74.4
Western KX 33	T	2X	50	26.2	9.4	74.1
McCurdy's 36M	T	M2X	54	31.5	8.0	74.1
ACCO U 326	N	3X	55	27.9	22.2	71.2
			Means	29.4	13.3	90.5

C.V. = 19.6%

TABLE 15. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENT AVERAGES OF HYBRIDS ENTERED IN AREA C1 TRIAL (IRRIGATED), 1968-1972

Brand & Variety	Percent Moisture				Yield, Bushels per Acre			
	1968-72	1969-72	1970-72	1971-72	1968-72	1969-72	1970-72	1971-72
ACCO U 333				27.8				110.4
ACCO UC 1900				26.1				113.1
ACCO UC 2900				28.9				112.0
ACCO UC 3300				32.2				112.0
COOP S-201			29.0	31.1			116.0	112.5
COOP T-207			31.5	33.9			99.2	103.0
Curry's SC-142		29.4	29.2	31.4		132.1	124.1	120.3
McCurdy's 2X4		29.5	29.3	31.5		126.9	120.2	116.4
McCurdy's MSP 111			23.3	25.4			97.6	101.0
McCurdy's MSP 333			27.9	29.4			107.4	108.6
McCurdy's MSX 22E				26.6				97.4
Pioneer 3579				31.1				103.2
Pioneer 3784			24.3	26.8			97.9	98.0
Pride R-200A			24.1	26.1			112.1	109.5
Pride R-290			26.4	28.6			110.2	120.1
Pride R-369			26.9	29.0			106.4	110.5
Renk RK 11A				27.4				100.3
Renk RK 44				30.3				120.3
SDAES SD 200				23.1				98.0
SDAES SD 250	26.2	25.1	25.0	27.5	98.6	97.2	91.0	91.6
SDAES EX 70		27.2	26.8	28.1		120.9	113.8	113.3
Western KX 55		27.0	29.1	31.4		113.5	114.2	116.3

TABLE 16. CORN PERFORMANCE TRIAL, AREA C1 (DRYLAND), REDFIELD DEVELOPMENT FARM, REDFIELD, 1972

Brand & Variety	Type	Cross	Perfor- mance Score	Percent Moisture	Percent Stalks Broken	Yield B/A
Pioneer 3773	N	2X	1	26.3	0.0	93.3
Trojan TXS 102	N	2X	3	27.6	2.1	90.7
Trojan TXS 94	N	2X	2	24.6	1.0	90.3
Western KX 55	T	2X	6	28.2	0.0	82.9
Pride R-290	N	2X	5	26.7	0.0	82.5
Curry's SC 144	N	2X	10	29.1	4.4	81.9
Payco SX 775	N	2X	9	27.1	2.3	81.4
Pioneer 3784	N	2X	7	25.3	0.0	80.8
ACCO UC 1900	T	2X	4	23.5	0.0	80.5
ACCO U 326	N	3X	8	23.1	1.1	79.4
Pioneer 3932	N	2X	14	24.6	2.4	77.5
Trojan M94	N	M3X	15	24.3	3.4	77.5
SDAES PP146	N	4X	12	23.3	3.1	77.4
Pioneer 3662	N	4X	16	26.6	1.1	77.3
ACCO DC 146	T	4X	13	23.1	3.4	77.2
Trojan TX 90	N	3X	11	23.5	0.0	77.1
Pride R-369	N	3X	17	26.1	1.0	76.4
Curry's SC-146	N	2X	26	30.8	0.0	75.9
ACCO UC 1301	N	2X	20	24.8	9.0	75.9
Coop S-201	N	2X	29	28.6	5.4	74.8
Trojan TX 100	N	3X	18	24.9	0.0	74.7
Pioneer 3778	N	3X	25	28.2	0.0	74.6
O's Gold SX 1010	N	2X	23	26.2	0.0	74.4
Pioneer 3956A	N	2X	19	24.4	0.0	74.1
Pioneer 3814	N	4X	21	23.8	3.3	73.9
SDAES SD 250	T	4X	22	23.1	4.4	73.5
SDAES EX 91	N	4X	24	19.9	2.2	70.7
ACCO U 313	T	3X	27	21.7	4.6	70.6
ACCO U 324	N	3X	28	22.1	2.2	70.2
Pride R-200A	N	3X	34	25.5	3.6	70.1
SDAES PP133	N	4X	30	22.4	2.2	69.6
SDAES PP112	N	4X	31	23.8	0.0	69.1
Sokota 232	T	4X	33	22.9	3.4	68.4
Coop D-200	N	4X	40	30.0	0.0	68.2
SDAES PP142	N	3X	32	21.2	2.2	67.2
SDAES EX 92	N	4X	35	21.1	1.2	64.6
Trojan TXS 99	N	2X	36	22.7	0.0	64.1
SDAES PP127	N	4X	39	23.2	0.0	64.0
SDAES SD 200	N	2X	38	21.5	3.8	63.9
SDAES PP147	N	4X	37	21.5	0.0	63.1
SDAES SD 230	T	4X	44	26.3	4.4	62.5
O's Gold SX 900	N	2X	42	22.7	2.8	62.2
Sokota 229	T	4X	41	21.1	0.0	61.6
ACCO DC 108	T	4X	43	20.6	10.0	60.0
ACCO DC 138	T	4X	47	21.7	16.7	60.0
Trojan TXS 85	N	M2X	45	21.1	3.7	58.1
SDAES PP154	N	3X	46	21.5	4.3	57.4
SDAES SD 220	T	4X	48	21.5	4.8	54.0
Trojan M70	N	M3X	49	19.9	1.2	39.1
			Means	24.2	2.5	71.7

C.V. = 12.9%

TABLE 17. CORN PERFORMANCE TRIAL, AREA D1, WHETSTONE VALLEY RESEARCH UNIT, MILBANK, 1972

Brand & Variety	Type	Cross	Perfor- mance Score	Percent Moisture	Percent Stalks Broken	Yield, B/A
SDAES EX 82	N	3X	1	31.9	0.8	100.5
Pioneer 3780	N	2X	4	36.3	0.9	98.1
Trojan TX 90	N	3X	3	30.5	0.8	95.9
Pioneer 3956A	N	2X	2	29.8	0.9	95.8
Trojan TXS 94	N	2X	5	34.7	0.4	95.6
Trojan TXS 102	N	2X	9	38.1	4.0	94.0
ACCO UC 2700	T	2X	10	35.5	0.0	90.6
Payco SX 775	N	2X	13	36.8	0.4	89.2
Trojan TX 100	N	3X	12	34.1	1.2	88.8
ACCO U 333	T	3X	17	36.3	1.4	87.4
SDAES PP146	N	4X	8	30.6	2.2	87.0
O's Gold SX 900	N	2X	6	27.7	1.3	86.4
Trojan M95	N	M3X	15	33.9	0.9	86.3
ACCO UC 2900	T	2X	14	33.0	0.9	85.7
Pioneer 3784	N	3X	18	35.1	0.4	85.7
ACCO UC 1900	T	2X	11	29.2	1.2	85.2
Pride R-290	N	2X	25	37.3	1.7	85.1
Payco 3X-783	N	3X	27	38.3	0.0	84.9
ACCO U 326	N	3X	16	31.5	1.5	84.5
ACCO UC 3300	T	2X	30	37.9	0.9	84.3
Renk RK 2	T	2X	7	25.1	0.9	83.9
Western KX 55	T	2X	26	37.0	0.0	83.9
SDAES PP161	N	4X	20	33.3	4.8	83.8
Pioneer 3932	N	2X	21	34.4	0.0	83.6
Sokota TS-62	N	2X	28	35.8	0.0	82.9
SDAES PP166	N	4X	19	32.2	3.0	82.7
Sokota MS-59	B	M2X	33	36.5	0.9	81.6
Pioneer 3579	N	M2X	32	36.0	0.4	81.2
Trojan TXS 99	N	2X	23	32.1	0.5	80.6
Sokota SK-54	N	3X	31	33.4	1.7	80.3
Western KX 46	N	M2X	37	38.1	0.4	80.1
ACCO UC 3201	N	2X	41	39.8	0.8	79.5
SDAES PP112	N	4X	29	29.9	3.5	78.3
O's Gold SX 1010	N	2X	39	37.5	0.4	78.2
Pioneer 3778	N	3X	38	35.9	0.0	77.0
Pioneer 3662	N	4X	42	36.7	1.3	76.8
ACCO UC 1301	N	2X	35	31.8	6.6	76.8
Pride R-369	N	3X	40	35.7	0.5	76.2
SDAES SD 200	N	2X	24	25.8	2.4	75.4
SDAES PP159	N	3X	36	31.7	0.5	74.9
Trojan M70	N	M3X	22	22.7	2.7	73.1
Trojan TXS 85	N	M2X	34	27.6	1.8	72.2
SDAES SD 250	T	4X	43	30.7	11.7	71.8
Pioneer 3773	N	2X	44	42.5	0.0	54.9
			Means	33.6	1.5	83.1

C.V. = 10.3%

TABLE 18. TWO-, THREE-, AND FOUR-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA D1 TRIAL, 1969-1972

Brand & Variety	Percent Moisture			Yield, Bushels per Acre		
	1969-72	1970-72	1971-72	1969-72	1970-72	1971-72
ACCO U 333			31.9			92.9
ACCO UC 1900			26.5			90.8
ACCO UC 2900			30.5			92.2
ACCO UC 3300			34.2			89.3
Pioneer 3579			31.6			95.0
Pioneer 3773	30.1	29.9	34.8	75.9	75.5	81.2
Pioneer 3784		26.9	30.8		82.4	90.6
Pioneer 3956A			26.5			95.1
Pride R-290			32.7			91.9
Pride R-369			31.8			85.2
Sokota MS-59		27.2	31.4		79.6	84.7
SDAES SD 200		20.8	23.2		76.2	82.2
SDAES SD 250	24.6	24.0	26.8	70.8	62.9	73.7
SDAES EX 82			27.7			94.7
SDAES PP112			26.6			72.0
Western KX 55			33.1			92.6

TABLE 19. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA C1 (DRYLAND) TRIAL, 1968-1972

Brand & Variety	Percent Moisture				Yield, Bushels per Acre			
	1968-72	1969-72	1970-72	1971-72	1968-72	1969-72	1970-72	1971-72
ACCO DC 146				24.8				54.9
ACCO UC 1900				23.0				59.6
COOP D-200				30.6				47.0
COOP S-201			26.5	30.1			54.0	57.3
Pioneer 3773			25.0	28.6			54.2	58.5
Pioneer 3784			24.4	27.6			52.8	57.3
Pioneer 3814				24.8				54.2
Pioneer 3956A				26.0				48.0
Pride R-200A			23.1	25.8			51.2	50.0
Pride R-290			24.6	28.5			50.8	60.6
Pride R-369			24.6	27.7			48.2	47.5
SDAES SD 200	20.3	20.1	19.7	22.3	51.3	48.9	48.2	54.4
SDAES SD 230	24.2	23.8	23.0	26.0	51.5	47.6	46.7	46.7
SDAES SD 250	23.6	23.2	21.9	24.5	47.9	43.6	43.2	48.9
SDAES PP112				25.2				50.1
SDAES PP127				22.4				51.0
SDAES PP133				24.0				55.6
SDAES PP146				24.0				54.6
SDAES PP147				22.7				52.9
Western KX 55				29.8				59.2

TABLE 20. CORN PERFORMANCE TRIAL, AREA B2, VO-AG FARM, GETTYSBURG, 1972

Brand & Variety	Type	Cross	Perfor- mance Score	Percent Moisture	Percent Stalks Broken	Yield B/A
Trojan TX 90	N	3X	1	20.5	8.8	58.9
ACCO DC 138	T	4X	11	19.7	42.6	58.7
SDAES PP140	N	4X	2	19.6	13.1	58.0
ACCO U 324	N	3X	3	19.9	8.2	56.2
Trojan TXS 94	N	2X	5	22.8	4.8	55.7
Pioneer 3872	N	4X	6	18.2	18.4	55.4
SDAES EX 82	N	3X	4	21.6	0.9	54.7
SDAES EX 90	N	3X	17	24.8	27.5	54.6
SDAES EX 87	N	4X	13	21.4	17.6	54.4
ACCO UC 1900	T	2X	7	21.6	6.0	54.3
SDAES PP147	N	4X	8	18.8	12.9	54.2
COOP S-201	N	2X	15	27.6	12.5	53.7
Trojan TXS 99	N	2X	9	21.6	3.1	53.5
Payco SX-580	N	2X	10	20.6	5.4	53.1
Trojan TXS 93	N	M2X	16	23.1	16.0	52.1
Western KX 55	T	2X	18	27.4	9.0	52.0
Western KX 30	T	M2X	12	19.7	3.0	51.7
Sokota MS-24	N	M2X	14	19.4	9.4	51.5
Pioneer 3959	N	3X	20	20.5	9.1	48.5
SDAES PP127	N	4X	23	22.0	11.4	48.3
Pride R-113	N	4X	21	17.4	18.3	48.0
Sokota MS-40	N	M2X	19	19.8	4.9	47.7
SDAES SD 200	N	2X	22	19.2	11.6	47.3
Pride R-110	N	4X	25	19.2	17.1	47.3
ACCO UC 1301	N	2X	36	23.4	28.3	46.4
Trojan TX 100	N	3X	28	27.3	6.3	46.1
Pioneer 3944	N	3X	26	19.7	10.7	45.8
Pioneer 3873	N	4X	27	18.6	22.3	45.6
SDAES PP154	N	3X	24	17.4	9.9	45.5
SDAES EX 88	N	3X	30	18.4	23.0	45.0
Sokota TS-42	N	2X	32	24.6	5.3	44.5
SDAES SD 220	N	4X	35	18.1	29.1	44.3
Sokota 229	T	4X	33	20.2	16.2	44.0
ACCO DC146	T	4X	31	23.0	5.7	43.9
Payco 3X-443	T	3X	29	19.2	8.6	43.0
SDAES SD 230	T	4X	45	23.7	49.0	42.1
SDAES SD 250	T	4X	40	23.3	21.2	41.9
Pioneer 3956A	N	2X	42	20.8	29.9	40.9
Trojan M70	N	M3X	39	17.1	12.2	40.8
Trojan TXS 85	N	M2X	34	18.0	4.3	40.8
ACCO U 326	N	3X	39	24.0	10.1	40.8
SDAES PP144	N	2X	38	17.3	14.6	38.7
ACCO U 313	T	3X	47	19.9	53.1	38.7
SDAES EX 89	N	4X	41	18.4	20.2	38.6
ACCO DC 108	T	4X	44	17.8	26.9	36.5
Pioneer 3972	N	3X	43	17.7	21.3	36.1
Trojan M95	N	M3X	46	24.7	15.0	35.6
Pioneer 3983	N	2X	48	19.8	33.0	35.2
SDAES PP142	N	3X	49	19.1	37.5	34.7
Means				20.8	16.4	47.0

C.V. = 23.6%

TABLE 21. LISTING OF THE HYBRID CORN ENTRIES AND TABLES WHERE THE RESULTS APPEAR

Company & Brand	Variety	Tables	Company & Brand	Variety	Tables
Cargill, Inc.	425	6	Clay Co. Seed Co.	A 201	10,13
Bx 2813, NoStar Sta	456	10	Spencer, IA "Curtis"	457	10
Minneapolis, MN	930	10			
"Cargill"	X19324	6	Sokota Hybrid	MS-59	6,7,17,18
			Producers, PO Drawer	MS-84	10,13
Disco, Inc.	1020	6	197, Brookings, SD	MS-24	20
800 N. Lawler	SX 14	6,14	"Sokota"	TS-75	10,13
Mitchell, SD	SX 16	14		229	16,20
"Disco"	SX 17	8,10		232	16
	SP 135	6		MS-40	20
	SP 170	8,10		TS-42	20
				SK-54	6,17
Pioneer Seed Co.	3715	10,13		TS-62	14,17
1206 Mulberry St.	3872	20		TS-85	10
Des Moines, IA	3773	6,7,16,17,18,19	"Fontanelle" Hybrids	F 400	10
"Pioneer"	3390	8,9,10,11,12,13	Nickerson, NB	F 440	10
	3959	20			
	3579	6,7,8,9,11,12,13,14,15	Ramy Seed Co.	X 2	10
	3387	10,13 17,18	Box 1356	3W-105	10
	3571	8,9,10,11,12,13	Mankato, MN	R-110	10
	3784	6,7,14,15,16,17,18,19	"Embro"		
	3780	6,14,17			
	3956A	14,16,17,18,19,20	W.O.McCurdy & Sons	3X4	6,7,8,9
	3814	16,19	Fremont, IA	2X4	6,7,8,9,10,13,14,15
	3873	20	"McCurdy's"	3X3	8,10,13
	3388	8,9,10,11,12,13		3X3E	6
	3498	8,11		36M	6,14
	3517	8,10,11		MSP 111	14,15
	3520	8,10,11		MSP 333	8,14,15
	3662	16,17		MSP 555	8,9
	3727	6,10,11		MSP 777	10,13
	3778	6,14,16,17		MSX 44	6,7,8,9
	3781	6,14		MSX 67	10
	3932	6,14,16,17		MSX 22E	8,14,15
	3944	20		MSX 55A	10
	3972	20		69-15A	6,14
	3983	20		69-111	10,13
				71-5	10
P-A-G Seeds	SX 56	10		71-214	6
Bx 2813, NoStar Sta	SX 67	6		71-313	10
Minneapolis, MN	SX 240	6		71-440	8
"P-A-G"	344	10			

TABLE 21. (Continued)

Farmland Industries	S-102	10,13	Trojan Seed Co.	TXS 85	8,14,16,17,20
PO Box 7305	S-201	6,7,11,12,14,15,16,17,20	Olivia, MN	TXS 93	20
Kansas City, MO	T-207	6,7,14,15	"Trojan"	TXS 102	6,8,10,11,14,16,17
"Coop"	D-200	11,12,16,19		TXS 107	6,11
				TXS 108	11
Wilson Hybrids	1016	8,9,10,11,12		TXS 115	10
Harlan, IA	1017	10,13		TX 90	6,8,14,16,17,20
"Wilson"	516	8,9,11,12		TX 100	6,8,14,16,17,20
				TX 104	8,11
King's Western	KX 30	20		TX 110	11
Seed Co.	KX 33	14		M 70	16,17,20
	KX 55	6,7,8,9,10,11,12,13,14		M 95	6,14,16,17,20
	KX 46	14,17 15,16,17,18,20		M 110	11
				TXS 94	6,8,10,14,16,17,20
O's Gold Seed Co.	SX 900	16,17		TXS 99	6,8,10,14,16,17,20
PO Box 460	SX 1010	16,17		TXS 104	8,11
Parkersburg, IA	SX 1100	11		TXS 109	10,11
"O's Gold"	SX 2102	10		TXS 111	10
	SX 2145	10,11		TXS 113	10
Earl May Seed & Nursery Co.	F 25	10	ACCO Seeds	U 313	16,20
Shenandoah, IA	F 23	6,8,10	PO Box 9	U 324	16,20
"Earl May"	X33	6,8,10	Belmond, IA	U 326	14,16,17,20
	X32	6,8,10	"ACCO"	U 333	6,7,14,15,17,18
	988	10		U 343	6,8,11
	2095	6,8,10		U 348	8,10,11
				U 378	8,9,10,11,12,13
Renk Seeds	RK 2	17		DC 108	16,20
RFD #2	RK 9	14		DC 138	16,20
Sun Prairie, WI	RK 11A	6,7,14,15		DC 146	16,19,20
"Renk"	RK 44	6,7,8,9,10,13,14,15		DC 393	6,11
	RK 66	8		DC 441	8,10,11
				TGG 10	10,11
Pride Co, Inc.	R-110	20		TGG 628	8,10
Glen Haven, WI	R-113	20		UC 1301	14,16,17,20
"Pride"	R-200A	6,14,15,16,19		UC 1900	6,7,14,15,16,17,18,19,20
	R-290	6,7,14,15,16,17,18,19		UC 2700	6,14,17
	R-369	6,7,14,15,16,17,18,19		UC 2900	6,7,14,15,17,18
	R-450	8,9,10,11,12,13		UC 3201	6,14,17
	R-501	8,10,11		UC 3300	6,7,8,9,10,11,13,14,15,18
	R-601	8,10,11,13		UC 3600	8,10,11
	R-728	8,9,10,11		UC 4600	8,9
	R-771	10,13		UC 4601	10

TABLE 21. (Continued)

Curry Seed Co.	SC-142	14,15	PAYCO Seeds	3X-443	20
Box 517	SC-144	11,14,16	Dassel, MN	SX-580	20
Elk Point, SD	SC-138	6,14	"Payco"	SX-775	6,14,16,17
"Curry's"	SC-146	6,8,10,16		3X-783	6,17
	SC-160A	10		SX-865	6,14
	SC-159	10,11		SX-986	8,10
	TC-342A	8		SX-1093	8,10
	TC-344A	8,10			
	TC-358A	11			
	TC-358B	10			
South Dakota	SD 200	8,10		PP127	11,12,16,19,20
Agricultural	SD 220	16,20		PP133	16,19
Experiment	SD 230	14,16,19,20		PP137	6
Station	SD 250	6,7,11,14,15,16,17,18,19,20		PP140	20
"SDAES"	SD 604	8,9,10,13		PP142	11,16,20
	EX 70	6,7,8,10,13,14,15		PP144	6,20
	EX 82	17,18,20		PP146	16,17,19
	EX 83	6		PP147	11,12,16,19,20
	EX 84	6		PP150	6,7
	EX 85	6		PP154	11,16,20
	EX 86	6		PP155	8,14
	EX 87	20		PP156	14
	EX 88	20		PP157	8,10,14
	EX 89	20		PP158	14
	EX 90	20		PP159	17
	EX 91	16		PP161	17
	EX 92	16		PP162	8,10
	EX 93	8,10		PP164	6
	PP104A	8,9		PP165	6
	PP112	16,17,18,19		PP166	17
	PP124	11,12		PP167	10