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1968 Corn Performance Trails

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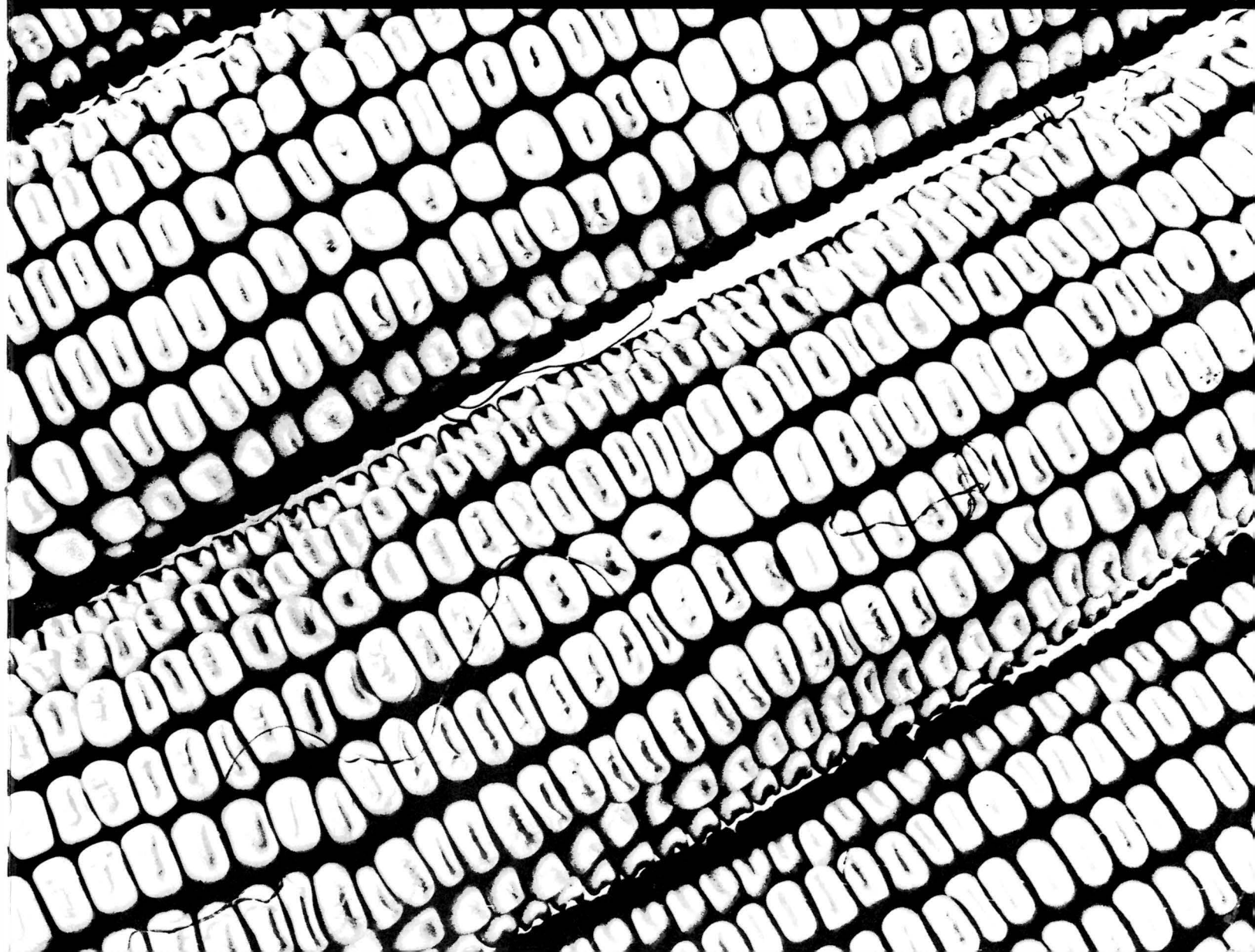
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CIRCULAR 195
JANUARY 1969

1968 CORN PERFORMANCE TRIALS

AGRONOMY DEPARTMENT
AGRICULTURAL EXPERIMENT STATION
SOUTH DAKOTA STATE UNIVERSITY, BROOKINGS



1968 Corn Performance Trials

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The primary purpose of this circular is to supply interested individuals with information on the relative performance of the hybrids entered in each test, when grown under similar environmental conditions. Information in the accompanying tables includes acre grain yields in bushels, moisture percentages of either ear or shelled corn when harvested, performance scores and other related information. Records of performance of the corn hybrids harvested in 1968 are presented as well as two-, three-, four-, and five-year averages of yield and moisture percentages where available. The trials reported herein have been conducted under the Agronomy program in Crop Performance Testing, Agricultural Experiment Station.

Location of the 1968 Trials

The trials were planted in the crop adaptation areas marked on the South Dakota map, page 7. The exact locations of each trial and the date of seeding and harvesting are given in Table 1. The soil classification, laboratory analysis of soil samples taken before or at seeding time, and fertilizer applied, are presented in Table 2.

Weather and Climatic Conditions

The climatic data for the 1968 corn growing season is based upon data from each station or from a U. S. Weather Bureau Station reasonably near the trial. No data are presented for the Geddes site but the cooperator's farm gauge recorded 10.10 inches of precipitation from June through August, most of it recorded the first part of June. Temperatures were generally below normal all over the state but the southcentral area was the driest and warmest area of the state in 1968.

Precipitation and temperatures were much below normal at all locations during the month of May. Though soil temperatures were cool, seeding was begun in mid-May. Had seeding been delayed until ideal conditions prevailed some locations would not have been seeded until mid-June, if at all. The cool temperatures of May coupled with excessive rainfall and continued cool temperatures of June caused stand losses to varieties with limited seedling cold tolerance or poor quality seed. The loss of stand, some buildup of weeds and continued below normal temperatures and precipitation through July and August produced some widely varying results. The Geddes and Parkston trials were most seriously affected.

The assistance of the following individuals is appreciated: D. B. Shank of the Agronomy Department; Sub-station supervisors Albert Dittman, Lloyd Dye, Jake Fredrickson, Quentin Kingsley, Burton Lawrensen, and Herb Lund; and farmer-cooperators William Fijala and Milton Freier.

TABLE 1. LOCATION OF THE 1968 CORN PERFORMANCE TRIALS

Area	County	Location	Post Office	Seeded	Harvested
B2	McPhearson	North Central Substation	Eureka	May 23	Oct. 10
C1-dry	Spink	Redfield Devel. Farm, 6E	Redfield	May 20	Oct. 22
C1-irr.	Spink	Redfield Devel. Farm, 6E	Redfield	May 20	Oct. 22
C2	Charles Mix	William Fijala Farm, 3E	Geddes	May 21	Oct. 15
D2	Codington	NE Research Farm, 15N	Watertown	May 15	Oct. 25
D3	Brookings	Agronomy Farm, 2NE	Brookings	May 14	Oct. 30
D4	Hutchinson	Milton Freier Farm, 2E	Parkston	May 17	Oct. 23
E	Clay	SE Research Farm 7W, 3S	Beresford	May 10	Oct. 31

Some trials produced excellent yields in spite of adverse conditions. Moisture in the grain was quite high at harvest in most entries of all trials. Harvest of the trials was delayed one to two weeks because of wet corn. The last freezing temperatures in the spring were on either May 20 or 24 at all sites. The first killing frost in the fall was about 10 days later than normal.

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 that were registered with the South Dakota State Department of Agriculture prior to March 11, 1968 were eligible for entry. A fee was charged for each entry in each area except for entries included by Experiment Station personnel. Either closed or open pedigree hybrids were eligible and each was allowed to be entered only once in each area.

A listing of the entries and the tables in which they are included is presented in Table 19.

TABLE 2. LABORATORY ANALYSES, SOIL CLASSIFICATION AND FERTILIZER APPLIED TO THE 1968 CORN PERFORMANCE TRIALS

Location	Soil Classification	Soil Test Levels			Fertilizer Applied			
		% O.M.	P	K	pH	Method	N	P
							lbs/A	
B2	Williams loam	3.6	70	682	7.0	10 T. Man. plowed	16	20
C1-dry	Beotia-Harmony si cl loam	3.0	42	436	6.6	plowed down	60	10
C1-irr.	Beotia-Harmony si cl loam	3.2	78	682	7.1	plowed down	120	20
C2	Reliance silty clay loam	3.6	16	682	7.6	anhydrous	80	0
D2	Kranzburg silty loam	3.7	23	354	6.3	plowed down	60	18
D3	Vienna loam	3.1	72	164	6.7	disced under	80	0
D4	Houdek loam	3.0	47	682	7.0	with oats '67	60	0
E	Kranzburg silty clay loam	3.0	50	682	6.3	plowed down	100	18

TABLE 3. PRECIPITATION AND TEMPERATURE DATA FOR THE 1968 CORN GROWING SEASON OF SOUTH DAKOTA

Location and district	Month	Precipitation, inches			Temperature in degrees F.		
		Month total	Departure from normal	Total departure	Month mean temp.	Departure from normal	Average departure
Eureka Area B2	May	1.86	- 0.72		50.1	- 5.6	
	June	5.88	2.05		63.9	- 1.1	
	July	1.49	- 0.96		68.2	- 4.2	
	Aug.	1.79	- 0.62		66.7	- 4.0	
	Sept.	2.15	0.83		58.7	- 1.4	
	Oct.	0.27	- 0.70	- 0.12	48.1	0.5	- 2.6
		<u>13.44</u>					
	Last freeze 32° - May 24			First frost 31° - October 3			
NE Farm 15N	May	2.15			50.3		
	June	3.18			64.3		
Watertown Area D2	July	2.39			67.3		
	Aug.	1.53			68.5		
	Sept.	<u>2.56</u>			55.7		
		<u>11.81</u>					
	Last freeze 32° - May 24			First frost 29° - October 3			
Brookings 2NE Area D3	May	1.52	- 1.27		51.2	- 6.4	
	June	4.26	0.31		66.2	- 0.9	
	July	3.27	1.12		68.4	- 4.8	
	Aug.	3.66	0.69		67.4	- 3.8	
	Sept.	3.69	1.66		57.2	- 4.1	
	Oct.	<u>3.60</u>	2.38	4.89	46.2	- 3.3	- 3.8
		<u>20.00</u>					
	Last freeze 32° - May 24			First frost 32° - Sept. 27			
Centerville 6SE Area E	May	0.92			55.7		
	June	4.62			73.3		
	July	6.43			73.3		
	Aug.	2.16			73.5		
	Sept.	3.92			62.1		
	Oct.	<u>5.57</u>			52.7		
		<u>23.62</u>					
	Last freeze 31° - May 20			First frost 32° - October 3			
Parkston 5E Area D4	May	1.53	- 1.27		52.9		
	June	6.41	2.60		71.5		
	July	2.10	- 0.30		73.7		
	Aug.	1.55	- 1.31		74.3		
	Sept.	3.14	0.92		63.0		
	Oct.	<u>3.64</u>	2.48	3.12	51.6		
		<u>18.37</u>					
	Last freeze 31° - May 25			First frost 24° - October 4			
Redfield 6 E Area C1	May	1.67			52.9		
	June	3.51			68.0		
	July	2.65			71.8		
	Aug.	1.65			70.9		
	Sept.	1.91			61.1		
	Oct.	<u>1.53</u>			49.6		
		<u>12.92</u>					
	Last freeze 29° - May 21			First frost 30° - October 3			

Experimental Procedure

The entries included in each test were planted in five or six replications. One replication was planted for public observation and no data were taken from it. Plots of individual hybrid entries were located at random within each replication. Available space, soil type and other factors determine the plot size and number of replications. The plot size, desired populations and related data are listed in Table 4.

TABLE 4. FIELD METHODS FOR THE 1968 CORN TRIAL SITES

Area	Table No.	Number of replications harvested	Method of planting	Population desired	Row		
					Number of	Width, inches	Length, feet
B2	5	5	drilled	8,700	1	40	39.0
C1-dry	14	4	drilled	10,500	1	36	39.0
C1-irr.	17	4	drilled	18,200	1	36	39.0
C2	16	4	drilled	9,700	1	40	39.0
D2	7	4	drilled	12,000	1	40	39.0
D3	9	4	drilled	12,000	1	40	39.0
D4	13	4	drilled	12,000	1	40	39.0
E	11	4	drilled	16,000	1	40	39.0

A recommended organic phosphate insecticide was used at the Area E site for corn root-worm control. Atrazine was applied at Areas D3 and E for grassy weed control.

All plots were seeded as drilled corn using cone seeders mounted over runner openers. The planting rate was 15% greater than the desired final stand to allow for attrition from various causes. Attrition in 1968 was higher for some entries than might be expected as adverse weather conditions caused greater stand reductions than anticipated. Little thinning was required.

TABLE 5. HARVEST AND MOISTURE DETERMINATION METHODS FOR THE 1968 CORN TRIALS

Area	Harvest method	Samples used for moisture determination	Moisture determined
B2	Hand picked	ear sections	oven-dried
C1-dry	Hand picked	ear sections	oven-dried
C1-irr.	Hand picked	ear sections	oven-dried
C2	Hand picked	ear sections	oven-dried
D2	Hand picked	shelled corn	electronically
D3	Picker-sheller	shelled corn	electronically
D4	Hand picked	ear sections	oven-dried
E	Picker-sheller	shelled corn	electronically

Measurements of Performance

Yield. The yield reported for each hybrid in each trial is the average obtained from field weights of all replications, expressed as bushels per acre of No. 2 corn at 15.5 percent 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.

If the trials were found to have statistically significant differences between mean yields at the five percent level, Duncan's Multiple Range Test was run on the means. In the interpretation of Duncan's Test, those mean yields accompanied by the same lower case letter under the Statistical Significance column in the tables are not considered to be statistically different in yield.

Using Table 6 as an example of Duncan's Test, note that the varieties SD Exp. 59, Pioneer 3956 on down through SD Exp. 72 are accompanied by the same lower case letter "a". Next note the varieties Pioneer 3956 through Northrup-King PX 426 followed by the letter "b". In the first instance all varieties below Northrup-King PX 426 are significantly lower than Pioneer 3956. These statements are true only for this trial under conditions that prevailed during the 1968 crop year. Average results of three or more years at the same location present a better picture of true yield differences.

Moisture Content. The moisture content of each entry is expressed as the percentage of moisture in either 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. Delaying the harvest and additional drying costs can be reduced if an operator can produce sound, dry corn. Grain yield and moisture percentage are of prime importance. Because of the importance of these two factors, the two primary results obtained in these trails are used to determine this rating.

Using the two primary results, the yields in each test were converted to percentages by comparing them with the mean yield of that test. Similar calculations were made for moisture at harvest time after first subtracting moisture content from 100 so that the varieties would be ranked according to their ability to produce sound, rather than soft, corn.

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

$$\frac{(\text{Yield percentage} \times 6) + (\text{Moisture percentage} \times 4)}{10}$$

Stand. No corrections were attempted for the drilled plantings.

Lodging. Root lodging was not serious in most 1968 trials and that which is recorded must be evaluated with caution.

Two severe storms accompanied by winds in excess of 100 m.p.h. moved across South Dakota in late June and mid-July. The early varieties which were farthest along in development generally suffered most seriously. The storms were accompanied by two or more inches of rainfall and as the soil became soaked the larger, more fully developed taller plants offered the most resistance and were blown over in the face of the high winds. Recovery was excellent and few ears were missed by the picker because of root lodging.

Stalk lodging was quite high in some trials. Some lodging was due to inherent genetic weaknesses in specific entries while some was due to deficient stalk development caused by the season. Cool weather or severe drouth stress may reduce the full production of strengthening tissue in the stalk prior to the first frost. Such stalks will then lodge in the face of high winds. Also, in 1968 stalk rot diseases **caused** many plants to be weak and lodge prior to harvest.

All percentages reported are calculated as the average of plants lodged or broken per entry. "R.L." or "S.B." in the tables indicates the plants Root Lodged or Stalks Broken.

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 temperatures. Corn hybrids that yield satisfactorily and produce corn that can be stored without additional costly handling are desirable. The performance score provides information on both these factors in a weighed fashion.

In choosing a hybrid, first check those yielding the most. Then look for entries with below average moisture. 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 for only one year. When planting a new hybrid the acreage should be limited until its adaptation to the environment on the particular farm is known.

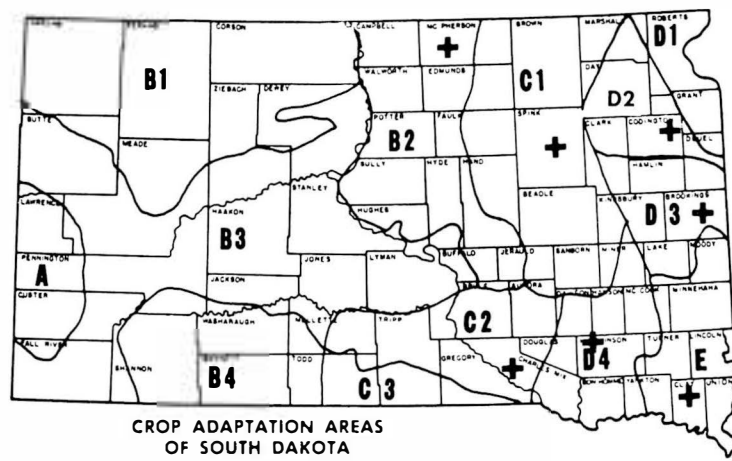


TABLE 6. CORN PERFORMANCE TRIAL, AREA B2, NORTHCENTRAL SUBSTATION, EUREKA, 1968

Variety	Performance rating	Percent moisture ear corn	Yield B/A	Statistical Significance
SD Exp. 59 (2x)	1	36.8	58.9	a
Pioneer 3956 (2x)	2	38.9	57.1	ab
SD Exp. 43 (4x)	5	39.6	54.6	abc
Pioneer 3959 (3x)	3	34.3	54.5	abcd
SD Exp. 72 (M3x)	4	36.8	54.3	abcd
SD 240 (4x)	10	42.3	51.5	bcde
Northrup-King PX 442 (3x)	6	34.7	50.5	bcde
Northrup-King PX 426 (3x)	7	35.5	50.4	bcde
SD 230 (4x)	11	38.9	49.4	cdef
Northrup-King PX 446 (3x)	17	43.2	48.2	cdef
Pioneer 3862 (4x)	12	39.4	48.2	cdefg
Pioneer 3872 (4x)	9	31.1	47.3	cdefgh
Sokota 233 (4x)	18	40.0	47.0	cdefgh
Disco 900 (4x)	19	40.1	46.9	cdefgh
Sokota SK-29 (3x)	21	41.3	46.7	defgh
SD 220 (4x)	15	37.3	46.6	defgh
Pioneer 388 (4x)	16	36.6	45.7	efghi
SD 248 (3x)	24	45.2	45.0	efghi
Northrup-King PX 417 (3x)	8	26.0	44.8	efghi
Minn. 805 (4x)	14	32.4	44.2	efghi
Sokota 225 (4x)	20	36.0	44.2	efghi
Pioneer 3985 (2x)	13	25.6	41.3	fghij
Northrup-King KE 435 (4x)	23	34.1	41.0	fghij
Minn. 806 (4x)	22	30.7	39.7	ghij
Pioneer 3935 (2x)	26	42.1	39.4	hij
Sokota 211 (4x)	25	35.6	37.1	ij
Disco SX-7 (2x)	27	44.0	33.6	j
Disco SX-10 (2x)	28	47.8	32.8	j
	Mean	37.4	46.5	

C.V. - 12.2%

TABLE 7. CORN PERFORMANCE TRIAL, AREA C1 (DRYLAND), REDFIELD DEVELOPMENT FARM, REDFIELD, 1968

Variety	Perfor- mance score	Percent stalks broken	Percent moisture ear corn	Yield B/A
Curry SC-142 (2x)	1	3	30.9	80.5
Pioneer 3911 (2x)	2	5	25.8	76.3
Northrup-King PX 527 (3x)	5	3	28.0	73.0
SD 248 (3x)	4	1	27.3	72.9
Pioneer 3956 (2x)	3	4	21.7	70.9
Pioneer 3799 (3x)	7	6	26.9	68.4
Disco 1020 (4x)	15	4	32.2	68.0
SD 240 (4x)	9	9	28.1	67.7
SD 230 (4x)	8	1	26.5	67.4
Northrup-King PX 446 (3x)	6	4	22.1	67.2
SD 250 (4x)	12	6	25.3	65.4
Pioneer 3812 (4x)	10	9	24.1	65.1
SD Exp. 47 (M3x)	14	8	26.0	64.4
SD Exp. 59 (2x)	11	1	21.5	63.3
Sokota SK-68 (3x)	20	6	29.6	63.1
Pioneer 3935 (2x)	13	3	21.1	62.3
Pioneer 3926 (2x)	19	6	26.8	62.0
Sokota SK-42 (3x)	17	6	25.0	61.9
Northrup-King PX 22 (2x)	18	8	25.0	61.8
Pioneer 3959 (3x)	16	4	22.6	61.7
Sokota 67-1 (3x)	23	2	32.5	60.9
Sokota TS-49 (2x)	22	4	28.3	59.6
Sokota TS-50 (2x)	21	5	23.5	57.6
Disco 1015 (4x)	24	2	31.3	56.9
		Mean	26.3	65.7

N.S.

C.V. = 14.2%

TABLE 8. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA B2 TRIAL, 1964-1968

Variety	Yield, bushels per acre				Percent moisture			
	1964-68	1965-68	1966-68	1967-68	1964-68	1965-68	1966-68	1967-68
Minn. 805			42.6	43.0			22.5	25.0
Minn. 806			37.4	38.0			23.4	25.2
Northrup-King KE 435	30.7	30.7	32.5	31.2	26.9	27.9	26.2	27.8
Northrup-King PX 446				38.7				33.5
Pioneer 3862	36.6	38.4	41.5	38.5	32.1	33.8	32.2	35.6
Pioneer 3872			44.3	37.2			26.8	28.7
Pioneer 388	36.7	38.2	41.4	35.1	32.2	33.3	31.5	35.1
Pioneer 3935				36.5				35.1
Pioneer 3956				44.3				34.9
Sokota 211			39.4	34.1			26.2	28.5
Sokota 225	37.0	38.6	40.3	38.7	27.5	28.9	28.9	30.6
SD 220	36.2	37.9	39.1	38.5	25.8	26.8	26.1	27.6
SD 230		42.7	44.7	40.9		31.8	31.7	34.0
SD 240	38.1	39.1	43.0	46.7	33.6	34.8	32.9	34.9
SD 248		37.7	39.7	34.5		39.8	38.6	43.5
SD Exp 43			45.8	43.5			31.1	34.3
SD Exp 59				51.3				26.6

TABLE 9. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE DRYLAND AREA C1 TRIAL, 1964-1968

Variety	Yield, bushels per acre				Percent moisture			
	1964-68	1965-68	1966-68	1967-68	1964-68	1965-68	1966-68	1967-68
Northrup-King PX 446				62.1				20.1
Pioneer 3812	57.3	58.5	68.0	65.0	25.1	25.7	23.3	22.6
Pioneer 3911				66.2				24.7
Pioneer 3926				53.3				24.8
Pioneer 3935				65.2				19.9
Pioneer 3956				62.6				22.2
Sokota TS-49				60.3				26.2
Sokota TS-50	53.8	55.6	64.5	54.3	25.6	25.7	24.0	23.1
Sokota SK-68			74.7	64.5			27.6	26.8
SD 230				60.4				25.5
SD 240	50.5	53.3	62.5	61.9	28.8	29.4	27.1	26.0
SD 248	58.5	59.2	69.7	69.2	27.1	25.6	25.0	23.6
SD 250	54.0	56.4	67.1	62.9	25.7	26.0	24.2	23.2
SD Exp 47	55.9	58.4	68.5	62.7	29.0	29.1	25.9	24.6
SD Exp 59				61.8				19.1

TABLE 10. CORN PERFORMANCE TRIAL, AREA C1 (IRRIGATED), REDFIELD DEVELOPMENT FARM, REDFIELD, 1968

Variety	Perfor- mance score	Percent stalks broken	% moisture		Yield, B/A		Statistical significance
			1968	67-68	1968	1967-68	
Northrup-King PX 556 (3x)	1	1	31.5		136.7		a
SD Exp 63 (3x)	2	4	30.0	31.1	134.2	140.8	ab
Northrup-King PX 519 (3x)	3	1	30.4		130.3		abc
SD Exp 66 (3x)	11	1	37.5	37.3	128.6	131.5	abcd
Northrup-King PX 525 (3x)	6	3	29.0	31.2	127.3	139.6	abcde
Northrup-King PX 527 (3x)	5	4	28.2	28.4	126.7	130.8	abcde
Curry SC-142 (2x)	8	7	32.9		125.8		abcde
Pioneer 3911 (2x)	4	6	26.1	25.9	124.7	134.2	abcdef
Sokota TS-49 (2x)	10	3	30.4	30.6	122.1	118.3	bcdefg
Pioneer 3926 (2x)	9	4	28.9	29.0	121.2	118.9	bcdefgh
SD Exp 52 (3x)	7	6	24.8	25.6	121.0	128.0	bcdefgh
SD Exp 65 (3x)	16	1	33.9	32.8	120.7	128.0	cdefgh
SD Exp 53 (3x)	13	5	31.2	31.0	119.7	122.8	cdefghi
Sokota SK-68 (3x)	15	7	30.9	29.4	117.8	125.6	cdefghij
Disco SX-17 (2x)	19	2	33.7		117.2		cdefghijk
Pioneer 3799 (3x)	12	7	27.8		116.1		defghijk
Pioneer 3812 (4x)	14	4	26.6	29.2	113.7	122.9	efghijk
Sokota MS-69 (2x)	23	4	33.8		110.5		fghijkl
Pioneer 3956 (2x)	17	2	24.8	26.5	110.2	116.5	fghijkl
Northrup-King PX 446 (3x)	18	4	24.6	28.1	108.9	125.2	ghijkl
SD 250 (4x)	22	3	30.2	29.8	107.5	115.0	ghijkl
Sokota 67-3 (3x)	28	4	34.5		107.4		ghijkl
Sokota TS-50 (2x)	20	3	28.2	30.2	107.0	124.9	hijkl
SD 240 (4x)	25	5	29.5	29.5	104.8	109.2	ijkl
Disco SP-150 (3x)	29	3	32.4		104.7		ijkl
SD 248 (3x)	30	7	33.1	29.7	104.7	121.3	ijkl
Pioneer 3935 (2x)	26	1	28.4	30.2	103.5	118.7	jkl
Pioneer 3959 (3x)	21	4	25.3		103.2		jkl
Northrup-King PX 22 (2x)	24	5	27.1		102.5		k1
SD 270 (4x)	27	5	29.6	27.7	102.5	118.2	k1
Disco SX-19 (2x)	32	4	36.8	33.5	97.8	111.5	1
Disco SP-155 (3x)	31	3	33.3		96.6		1
		Mean	30.2		114.8		

C.V. = 7.7%

TABLE 11. CORN PERFORMANCE TRIAL, AREA D2, NORTHEAST RESEARCH FARM, WATERTOWN, 1968

Variety	Perfor- mance rating	Percent stalks broken	Percent moisture ear corn	Yield B/A	Statistical significance
SD Exp 72 (M3x)	3	35	36.6	58.2	a
SD Exp 48 (M3x)	4	19	36.5	56.4	ab
Pioneer 3956 (2x)	1	3	30.8	56.1	abc
Sokota SK-29 (3x)	2	12	27.4	54.3	abcd
Northrup-King PX 442 (3x)	5	3	30.8	51.2	bcde
SD Exp 59 (2x)	6	13	34.6	50.5	bcdef
SD 230 (4x)	14	38	39.5	45.3	efg
Pioneer 3959 (3x)	9	3	35.2	45.0	efg
SD 240 (4x)	15	36	39.6	45.0	efg
SD Exp 74 (4x)	7	13	25.3	44.0	fgh
SD 248 (3x)	20	16	45.4	44.0	fgh
Northrup-King PX 426 (3x)	8	44	29.0	43.3	gh
Pioneer 3854 (4x)	16	15	35.8	43.2	gh
SD 220 (4x)	17	42	35.8	42.3	gh
Pioneer 388 (4x)	11	10	29.0	41.8	ghi
Sokota 225 (4x)	12	19	30.7	41.7	ghi
United-Hagie 6S260 (2x)	19	6	38.1	41.7	ghi
Pioneer 3872 (4x)	10	11	28.0	41.5	ghi
Minn. 805 (4x)	13	21	27.8	40.3	ghij
Pioneer 3889 (4x)	18	17	31.2	39.6	ghijk
Northrup-King PX 527 (3x)	24	0	45.8	38.9	ghijk
Pioneer 3935 (2x)	21	17	38.9	38.7	ghijk
Northrup-King PX 446 (3x)	23	9	39.9	38.7	ghijk
Northrup-King PX 525 (3x)	25	11	45.9	37.4	hijk
Sokota 233 (4x)	26	11	42.6	35.1	ijk
Sokota 211 (4x)	22	11	29.0	34.2	jkl
Disco SX-17 (2x)	28	7	50.8	33.2	jkl
Disco SX-7 (2x)	27	2	39.2	32.9	kl
United-Hagie 5S271 (2x)	29	2	59.5	27.5	l
		Mean	36.5	42.8	

C.V. = 9.5%

TABLE 12. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA D2 TRIAL, 1963-1968*

Variety	Yields, bushels per acre				Percent moisture			
	1963-68	1964-68	1965-68	1967-68	1963-68	1964-68	1965-68	1967-68
Minn. 805				39.1				25.1
Northrup-King PX 525				36.2				41.4
Northrup-King PX 527				35.5				40.3
Pioneer 3854		41.3	40.5	38.7		30.5	34.3	33.5
Pioneer 388	46.1	38.7	40.8	38.3	29.6	30.0	31.4	28.9
Pioneer 3935				38.5				33.4
Pioneer 3956				47.4				29.4
Sokota 211				35.1				26.3
Sokota 225				37.5				29.2
SD 220	47.3	41.4	41.0	39.6	28.3	28.4	32.7	30.8
SD 230	53.0	43.6	43.6	41.1	32.5	33.0	35.6	36.3
SD 240	50.9	42.1	41.6	42.1	34.1	34.2	36.7	35.1
SD 248		41.3	42.4	40.8		38.0	42.0	39.8
SD Exp 48			49.7	50.2			34.4	43.8
SD Exp 59				46.8				29.9

* 1966 trail destroyed; 1963 data included for 5-year averages.

TABLE 13. CORN PERFORMANCE TRIAL, AREA D3, AGRONOMY FARM, BROOKINGS, 1968

Variety	Perfor- mance rating	Percent		Percent moisture	Yield B/A	Statistical significance
		RL	SB			
United-Hagie 30G6 (2x)	1	2	1	31.0	101.5	a
McCurdy 2 X 4 (2x)	2	4	1	31.4	96.9	ab
Asgrow ASX 58 (2x)	3	4	1	30.9	95.8	abc
Northrup-King PX 556 (3x)	5	9	0	32.0	94.7	abcd
SD Exp 66 (3x)	7	27	0	30.9	93.3	abcde
United-Hagie SX134 (2x)	6	2	0	30.5	93.0	abcdef
SD Exp 63 (3x)	4	4	4	28.4	92.1	abcdefg
Pioneer 3582 (2x)	10	0	1	31.8	91.9	abcdefg
Northrup-King PX 525 (3x)	8	3	2	29.6	90.9	bcdefgh
Asgrow ATC 75 (3x)	13	4	0	33.3	90.2	bcdefghi
Northrup-King PX 527 (3x)	9	1	1	28.3	89.7	bcdefghij
SD Exp 70 (3x)	11	20	1	30.6	89.7	bcdefghij
Asgrow ATC 79 (3x)	14	2	1	32.8	88.6	bcdefghijk
Pioneer 3715 (3x)	18	1	0	32.0	86.8	bcdefghijkl
SD Exp 64 (4x)	12	20	5	27.5	86.0	bcdefghijklm
United-Hagie 6G7 (2x)	17	0	1	30.3	85.7	cdefghijklmn
Pioneer 3799 (3x)	15	17	2	29.3	85.5	cdefghijklmn
SD Exp 71 (M3x)	20	36	1	31.2	85.1	cdefghijklmno
SD Exp 52 (3x)	16	2	4	29.1	85.0	cdefghijklmno
Sokota TS-49 (2x)	19	9	1	28.4	84.0	defghijklmno
McCurdy 96 (4x)	24	9	1	31.8	82.5	efghijklmno
Pioneer 3721 (3x)	25	2	0	31.8	82.4	efghijklmno
Asgrow ASC 91 (2x)	33	1	0	35.8	82.4	efghijklmno
McCurdy 3 X 4 (2x)	22	3	2	30.8	82.2	efghijklmnop
Northrup-King PX 519 (3x)	23	7	1	30.8	82.1	efghijklmnopq
SD Exp 54 (M3x)	21	21	4	29.6	81.4	efghijklmnopq
Northrup-King PX 580 (3x)	27	2	1	32.3	81.3	fghijklmnopq
SD 248 (3x)	26	50	2	30.1	80.6	ghijklmnopq
Pioneer 3773 (2x)	29	5	0	31.7	80.5	ghijklmnopq
Sokota 67-1 (3x)	32	10	0	33.0	80.3	ghijklmnopq
McCurdy 3 X 9 (2x)	31	4	2	31.0	79.4	hijklmnopq
SD Exp 53 (3x)	30	15	5	29.7	78.6	hijklmnopq
United-Hagie 6S299 (2x)	34	3	1	30.8	78.5	hijklmnopq
SD 250 (4x)	28	36	3	28.3	78.3	ijklmnopq
Sokota MS-69 (M2x)	36	16	4	31.5	77.5	jklmnopqr
SD Exp 65 (3x)	35	4	0	30.4	76.9	klmnopqr
Sokota SK-68 (3x)	38	15	1	30.6	75.3	lmnopqr
Pioneer 3926 (2x)	39	6	1	30.5	75.0	lmnopqr
Sokota SK-42 (3x)	40	32	7	29.9	74.3	lmnopqr
Pioneer 3935 (2x)	37	11	0	26.6	73.5	mnpqr
SD 240 (4x)	42	27	7	28.8	73.1	mnpqr
SD Exp 73 (3x)	41	22	1	28.2	72.8	nopqr
McCurdy HP4 (3x)	45	18	1	34.6	72.8	nopqr
Sokota TS-50 (2x)	43	4	2	28.4	72.0	opqr
Disco SX-10 (2x)	44	11	1	28.8	69.0	pqr
McCurdy 3 X 5 (2x)	47	7	1	38.7	67.7	qr
Disco SX-7 (2x)	46	10	0	27.5	64.1	r
			Mean	30.6	82.5	

C.V. = 9.5%

TABLE 14. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA D3 TRAIL, 1964-1968

Variety	Yields, bushels per acre				Percent moisture			
	1964-68	1965-68	1966-68	1967-68	1964-68	1965-68	1966-68	1967-68
Disco SX-10				60.7				28.3
McCurdy 3 X 4			58.0	59.3			29.7	31.6
McCurdy 3 X 5				61.6				37.6
McCurdy 3 X 9			68.5	66.3			30.3	32.3
Northrup-King PX 525				73.2				30.5
Northrup-King PX 527				66.9				29.9
Pioneer 3715				71.5				32.8
Pioneer 3773				58.2				35.2
Pioneer 3926				60.3				27.1
Pioneer 3935				62.8				25.9
Sokota TS-49				69.6				27.5
Sokota TS-50	71.6	68.4	61.7	60.1	24.5	23.3	24.1	25.8
Sokota SK-68			66.2	66.0			25.5	30.2
United-Hagle SX 134				76.9				32.7
United-Hagle 6S299				68.3				28.6
SD 240				62.5				24.6
SD 248	74.9	70.7	66.1	67.0	27.1	27.1	27.7	29.2
SD 250	67.7	64.1	61.0	62.1	25.6	25.1	26.0	27.0
SD Exp 52				66.8				28.0
SD Exp 53		74.2	68.7	68.3		26.8	26.8	28.4
SD Exp 54		65.6	68.9	68.7		27.3	27.1	28.8
SD Exp 63				72.3				30.3
SD Exp 65				73.6				30.0
SD Exp 66				79.8				32.7

TABLE 15. CORN PERFORMANCE TRIAL, AREA E, SOUTHEAST RESEARCH FARM, BERESFORD, 1968

Variety	Perfor- mance score	Percent		Percent moisture	Yield, B/A	Statistical significance
		RL	SB			
Pioneer 3510 (2x)	10	0	4	32.4	150.3	a
Pioneer 3333 (M3x)	7	1	3	31.6	150.2	ab
Curry TC-358 (3x)	4	0	5	27.4	146.7	abc
Asgrow ATC 79 (3x)	3	1	6	26.5	145.9	abcd
Asgrow ASX 58 (2x)	1	3	7	24.0	144.6	abcde
Northrup-King PX 50 (2x)	2	2	8	24.3	144.0	abcdef
McCurdy 2 X 4 (2x)	9	2	4	24.6	141.7	abcdefg
Pioneer 3545 (2x)	11	0	2	26.2	141.5	abcdefg
Northrup-King PX 580 (2x)	8	2	9	23.7	140.7	abcdefgh
Northrup-King PX 556 (3x)	5	1	11	22.1	140.2	abcdefgh
United-Hagie 6G7 (2x)	6	4	12	21.8	138.9	abcdefghi
Pioneer 3505 (2x)	16	0	7	28.9	138.6	abcdefghij
McCurdy HP4 (3x)	12	2	12	25.7	138.4	abcdefghij
Northrup-King PX 621 (3x)	15	3	11	27.3	137.6	bcdefghijk
Northrup-King PX 610 (3x)	13	0	8	25.7	136.5	cdefghijk
SD Exp 67 (3x)	21	2	42	30.3	136.0	cdefghijk
Pioneer 3570 (2x)	14	0	1	25.1	135.8	cdefghijk
Pioneer 3365 (3x)	23	1	3	30.2	135.4	cdefghijk
United-Hagie 6S370 (2x)	17	1	2	27.0	135.2	cdefghijk
Nebr. 501G (4x)	24	21	13	31.0	134.5	cdefghijk
McCurdy 3 X 6 (2x)	20	1	10	28.1	133.7	cdefghijkl
Pioneer 3390 (2x)	26	7	3	31.3	133.7	cdefghijkl
McCurdy 112M (4x)	22	6	12	28.5	133.5	defghijkl
Pioneer 3567 (2x)	25	0	3	30.0	132.2	efghijklm
Asgrow ASC 91 (2x)	27	0	2	30.0	132.2	efghijklm
Asgrow ATC 75 (3x)	19	0	10	26.0	131.4	efghijklm
Curry SC-142 (2x)	18	11	11	24.5	130.6	fghijklm
Sokota SK-70 (M2x)	28	7	2	29.0	130.3	fghijklm
Pioneer 3291 (4x)	32	1	12	30.0	129.2	ghijklmn
Disco 112-A (4x)	33	1	8	28.5	127.0	hijklmno
SD Exp 69 (4x)	37	3	23	31.3	126.8	hijklmno
Northrup-King PX 63 (2x)	29	5	7	26.8	126.6	hijklmno
United-Hagie 5S495	38	2	3	32.2	125.7	ijklmno
Pioneer 3715 (3x)	30	0	19	25.7	124.9	ijklmno
McCurdy HP5 (3x)	34	0	10	27.1	124.9	ijklmno
United-Hagie 23G3 (2x)	35	2	2	27.8	124.3	jklmno
Minn. 417 (4x)	31	1	11	25.3	123.8	klmno
Green Acres 401 (4x)	36	4	9	27.3	123.4	klmno
Curry SC-166 (2x)	42	0	2	32.4	119.0	lmno
Sokota 645A (4x)	39	1	7	28.6	118.6	mnop
Northrup-King PX 52 (2x)	40	2	3	25.6	115.1	nopq
SD Exp 68 (3x)	44	1	16	33.5	114.7	nopq
Sokota 623 (4x)	41	4	5	28.2	114.6	nopq
SD 604 (4x)	43	4	28	29.0	113.4	opq
Curry TC-360 (3x)	46	1	4	34.4	107.4	pq
SD 420 (4x)	45	4	11	25.9	102.9	qr
Disco SX-29 (2x)	47	1	4	28.7	91.9	rs
SD 622 (4x)	48	1	7	29.0	84.5	s
			Mean	27.9	129.2	

C.V. = 6.7%

TABLE 16. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA E TRIAL, 1964-1968

Variety	Yield, bushels per acre				Percent moisture			
	1964-68	1965-68	1966-68	1967-68	1964-68	1965-68	1966-68	1967-68
Green Acres 401				126.8				25.6
McCurdy 3 X 6			134.9	131.5			24.9	26.3
McCurdy 112M			128.2	126.3			31.6	25.8
McCurdy HP5				122.2				25.1
Minn. 417	118.5	119.4	122.1	116.6	21.2	21.9	21.7	22.7
Northrup-King PX 50				137.4				22.2
Northrup-King PX 52				116.2				22.7
Northrup-King PX 610				133.1				24.2
Nebr. 501G				130.9				27.3
Pioneer 3291	121.4	124.8	126.1	129.4	26.2	27.2	27.0	27.3
Pioneer 3510		142.2	146.0	141.3		28.1	28.5	30.6
Pioneer 3567			132.9	131.3			24.9	25.6
Pioneer 3715			130.5	129.4			21.6	22.3
Sokota 623		118.6	120.1	117.0		24.4	24.3	25.4
Sokota 645A				118.0				26.5
Sokota SK-70			127.4	131.6			24.5	25.4
SD 622	101.8	102.3	101.4	95.3	24.4	25.5	25.6	26.3
SD Exp 67				139.3				28.3
SD Exp 68				131.4				30.4
SD Exp 69				132.8				27.9

TABLE 17. CORN PERFORMANCE TRIAL, MELVIN FREIER FARM, AREA D4, PARKSTON, 1968

Variety	Perfor- mance rating	Percent stalks broken	Percent moisture ear corn	Yield B/A	Statistical significance
Asgrow ASK 58 (2x)	2	21	23.9	42.3	a
Northrup-King PX 556 (3x)	1	31	22.2	41.8	ab
Curry SC-142 (2x)	3	22	24.7	39.9	abc
Pioneer 3545 (2x)	5	38	29.7	39.0	abcd
Pioneer 3291 (4x)	7	31	36.0	38.1	abcde
McCurdy 3 X 4 (2x)	4	12	19.0	36.5	abcdef
Curry SC-158 (2x)	8	5	32.8	36.0	abcdefg
Pioneer 3333 (M3x)	12	28	37.4	35.6	abcdefg
McCurdy 2 X 5 (2x)	10	8	32.9	35.4	abcdefgh
Pioneer 3715 (3x)	6	25	22.2	35.3	abcdefgh
Pioneer 3365 (M3x)	13	11	35.2	34.9	abcdefgh
Northrup-King PX 610 (3x)	9	30	27.6	34.5	abcdefghi
Pioneer 3505 (M2x)	16	21	37.7	33.3	abcdefghij
McCurdy 2 X 4 (2x)	11	26	25.0	33.1	abcdefghij
McCurdy 3 X 9 (2x)	17	23	29.0	30.8	abcdefghijk
Asgrow ASC 91 (2x)	19	22	34.4	30.7	abcdefghijk
SD 420 (4x)	14	33	25.5	30.4	abcdefghijk
McCurdy HP5 (3x)	15	27	26.8	30.4	abcdefghijk
Northrup-King PX 63 (2x)	21	34	33.2	29.8	abcdefghijk
Green Acres 401 (4x)	20	34	31.5	29.7	abcdefghijk
Asgrow ATC 79 (3x)	25	31	34.3	28.5	bcdefghijkl
SD 622 (4x)	22	16	28.1	28.3	bcdefghijkl
SD Exp 69 (4x)	27	47	38.0	28.3	bcdefghijkl
Asgrow ATC 75 (3x)	24	28	28.9	28.2	bcdefghijkl
Sokota SK-70 (M2x)	23	32	28.0	28.1	bcdefghijkl
Northrup-King PX 52 (2x)	18	31	24.1	28.0	bcdefghijkl
Pioneer 3510 (2x)	29	40	37.7	26.7	cdefghijkl
Pioneer 3390 (M2x)	28	25	35.0	26.6	cdefghijkl
Northrup-King PX 50 (2x)	26	27	27.6	26.3	cdefghijkl
Northrup-King PX 621 (3x)	30	19	34.8	24.5	defghijklm
SD Exp 67 (3x)	34	20	37.8	23.3	efghijklm
Nebr. 501G (4x)	32	24	36.5	23.1	efghijklm
Sokota 463 (4x)	36	17	34.7	22.3	fghijklm
SD Exp 68 (3x)	38	31	39.3	22.0	fghijklm
Disco SX-29 (2x)	35	44	32.3	21.7	fghijklm
Sokota 623 (4x)	31	20	29.7	21.6	fghijklm
Pioneer 3567 (2x)	37	7	30.7	21.0	ghijklm
Pioneer 3617 (4x)	33	22	27.5	20.6	ghijklm
Minn. 417 (4x)	40	21	34.1	19.8	hijklm
Curry SC-144 (2x)	39	21	28.8	18.6	ijklm
Disco 112-A (4x)	41	22	31.9	17.4	ijklm
Green Acres 462 (4x)	42	21	36.7	16.3	klm
Green Acres 636 (4x)	43	19	35.8	14.7	klm
SD 604 (4x)	44	24	31.2	12.6	lm
Pioneer 3306 (2x)	45	15	43.3	8.8	m
Mean			31.4	27.9	

C.V. = 34.2%

TABLE 18. CORN PERFORMANCE TRIAL, AREA C2, WM. FIJALA FARM, GEDDES, 1968

Variety	Perfor- mance score	Percent stalks broken	Percent moisture ear corn	Yield B/A	1967-68 averages	
					Moisture	Yield
Pioneer 3510 (2x)	5	1	35.9	66.8	32.4	60.0
Nebr. 501G (4x)	2	1	33.7	66.5	34.1	48.6
Pioneer 3365 (M3x)	4	1	33.1	65.2		
Pioneer 3582 (4x)	1	0	27.0	64.7		
Green Acres 401 (4x)	7	2	30.4	62.7		
Northrup-King PX 621 (3x)	8	3	30.3	62.5		
Pioneer 3545 (2x)	6	0	26.8	61.2		
SD Exp 69 (3x)	15	2	38.6	60.7	34.8	48.6
Northrup-King PX 610 (3x)	10	2	29.7	59.8	27.4	54.1
Northrup-King PX 527 (3x)	3	2	21.8	59.7	20.3	53.0
Pioneer 3505 (M2x)	18	0	37.1	59.7		
Disco 112-A (4x)	11	0	29.7	58.6		
SD Exp 68 (3x)	17	1	34.3	58.3	33.1	49.2
Pioneer 3333 (M3x)	25	0	36.9	58.2		
Pioneer 3414 (4x)	12	1	29.5	57.5	27.6	51.8
Northrup-King PX 556 (3x)	9	2	22.3	56.8		
Northrup-King PX 50 (2x)	14	0	28.0	56.3	26.6	55.7
Pioneer 3390 (M3x)	24	0	32.8	56.1		
SD Exp 67 (3x)	23	1	32.4	55.9	32.5	41.4
Pioneer 3570 (2x)	20	0	29.4	55.5		
Pioneer 3617 (4x)	19	0	27.9	54.8		
Curry SC-142 (2x)	13	0	24.3	54.3		
Northrup-King PX 580 (3x)	21	1	28.7	54.0		
Sokota 463 (4x)	28	0	30.0	53.5	27.4	43.9
Pioneer 3567 (2x)	29	0	30.6	53.0	29.6	45.7
Sokota SK-70 (M2x)	27	1	28.4	52.5	31.2	43.7
Curry SC-144 (2x)	22	0	27.1	52.4		
SD 270 (4x)	16	2	18.7	50.3	17.4	41.6
SD 420 (4x)	30	5	27.2	49.5		
Northrup-King PX 525 (3x)	26	5	20.8	49.3	18.5	44.4
Disco SX-29 (2x)	34	0	30.0	47.6		
Sokota SK-68 (3x)	36	4	32.6	47.2	25.7	42.3
Pioneer 3715 (3x)	33	1	28.8	47.0	25.3	42.4
Sokota MS-69 (M2x)	31	1	24.8	46.5	22.5	41.0
Sokota 67-3 (3x)	35	1	26.7	45.4		
Northrup-King PX 519 (3x)	32	3	23.9	45.3		
			Mean	29.2	55.7	

C.V. = 19.6%

TABLE 19. THE CORN HYBRIDS ENTERED FOR TEST IN THE 1968 CORN PERFORMANCE TRIALS AND THE TABLES IN WHICH THE RESULTS APPEAR

Variety	Table	Variety	Table	Variety	Table	Variety	Table
Asgrow ASX 58	12,14,16	Northrup-King KE 435	5,7	Minn. 417	14,15,16	U-H 6S299	12,13
Asgrow ATC 75	12,14,16	Northrup-King PX 22	6,9	Minn. 805	5,7,10,11	U-H SX 134	12,13
Asgrow ATC 79	12,14,16	Northrup-King PX 50	14,15,16,17	Minn. 806	5,7	U-H 5S495	14
Asgrow ASC 91	12,14,16	Northrup-King PX 52	14,15,16			U-H 6S260	10
		Northrup-King PX 63	14,16	Nebr. 501G	14,15,16,17	U-H 6S370	14
Curry SC-142	6,9,14,16,17					U-H 5S271	10
Curry SC-144	16	Northrup-King PX 417	5	Pioneer 3291	14,15,16	U-H 6G7	12,14
Curry SC-158	16	Northrup-King PX 426	5,10	Pioneer 3306	16	U-H 23G3	14
Curry SC-166	14	Northrup-King PX 442	5,10	Pioneer 3333	14,16,17	U-H 30G6	12
Curry SC-358	14	Northrup-King PX 446	5,6,7,8,9,10	Pioneer 3365	14,16,17		
Curry TC-360	14	Northrup-King PX 519	9,12,17	Pioneer 3390	14,16,17	SD 220	5,7,10,11
						SD 230	5,6,7,8,10,11
Disco 112A	14,16,17	Northrup-King PX 525	9,10,11,12,13,17	Pioneer 3414	17	SD 240	5,6,7,8,9,10,11,12,13
Disco 900	5	Northrup-King PX 527	6,9,10,11,12,13,17	Pioneer 3505	14,16,17	SD 248	5,6,7,8,9,10,11,12,13
Disco 1015	6	Northrup-King PX 556	9,12,14,16,17	Pioneer 3510	14,15,16,17	SD 250	6,8,9,12,13
Disco 1020	6	Northrup-King PX 580	12,14,17	Pioneer 3545	14,16,17		
Disco SX-7	5,10,12	Northrup-King PX 610	14,15,16,17	Pioneer 3567	14,15,16,17	SD 270	9,17
Disco SX-10	5,12,13	Northrup-King PX 621	14,16,17			SD 420	14,16,17
				Pioneer 3570	14,17	SD 604	14,16
Disco SX-17	9,10	Sokota 211	5,7,10,11	Pioneer 3582	12,17	SD 622	14,15,16
Disco SX-19	9	Sokota 225	5,7,10,11	Pioneer 3617	16,17		
Disco SX-29	14,16,17	Sokota 233	5,10	Pioneer 3715	12,13,14,15,16,17	SD Exp 43	5,7
Disco SP-150	9	Sokota 463	16,17	Pioneer 3721	12	SD Exp 47	6,8
Disco SP-155	9	Sokota 623	14,15,16	Pioneer 3773	12,13	SD Exp 48	10,11
						SD Exp 52	9,12,13
Green Acres 401	14,15,16,17	Sokota 645A	14,15	Pioneer 3799	6,9,12	SD Exp 53	9,12,13
Green Acres 462	16	Sokota SK-29	5,10	Pioneer 3812	6,8,9	SD Exp 54	12,13
Green Acres 636	16	Sokota SK-42	6,12	Pioneer 3854	10,11	SD Exp 59	5,6,7,8,10,11
		Sokota TS-49	6,8,9,12,13	Pioneer 3862	5,7		
McCurdy's 2X4	12,14,16	Sokota TS-50	6,8,9,12,13	Pioneer 3872	5,7,10	SD Exp 63	9,12,13
McCurdy's 2X5	16			Pioneer 388	5,7,10,11	SD Exp 64	12
McCurdy's 3X4	12,13,16	Sokota SK-68	6,8,9,12,13,17			SD Exp 65	9,12,13
McCurdy's 3X5	12,13	Sokota MS-69	9,12,17	Pioneer 3889	10	SD Exp 66	9,12,13
McCurdy's 3X6	14,15	Sokota SK-70	14,15,16,17	Pioneer 3926	6,8,9,12,13	SD Exp 67	14,15,16,17
		Sokota 67-1	6,12	Pioneer 3935	5,6,7,8,9,10,11,12,13	SD Exp 68	14,15,16,17
McCurdy's 3X9	12,13,16	Sokota 67-3	9,17	Pioneer 3956	5,6,7,8,9,10,11	SD Exp 69	14,15,16,17
McCurdy's 96	12			Pioneer 3959	5,6,9,10	SD Exp 70	12
McCurdy's 112M	14,15			Pioneer 3985	5	SD Exp 71	12
McCurdy's HP4	12,14					SD Exp 72	5,10
McCurdy's HP5	14,15,16					SD Exp 73	12
						SD Exp 74	10