

South Dakota State University
**Open PRAIRIE: Open Public Research Access Institutional
Repository and Information Exchange**

Agricultural Experiment Station Circulars

SDSU Agricultural Experiment Station

1-1964

1963 Corn Performance Trials

J. J. Bonnemann
South Dakota State University

Follow this and additional works at: http://openprairie.sdstate.edu/agexperimentsta_circ

Recommended Citation

Bonnemann, J. J., "1963 Corn Performance Trials" (1964). *Agricultural Experiment Station Circulars*. Paper 186.
http://openprairie.sdstate.edu/agexperimentsta_circ/186

This Circular is brought to you for free and open access by the SDSU Agricultural Experiment Station at Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in Agricultural Experiment Station Circulars by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact michael.biondo@sdstate.edu.

1963 CORN PERFORMANCE TRIALS



AGRONOMY DEPARTMENT
AGRICULTURAL EXPERIMENT STATION
SOUTH DAKOTA STATE COLLEGE, BROOKINGS

1963 South Dakota Corn Performance Trials

J. J. Bonnemann 1/

Agricultural Experiment Station
South Dakota State College
Brookings, South Dakota

The trials reported herein have been conducted under the supervision of the Crop Performance Activity, Agricultural Experiment Station since 1961. The performance records of corn hybrids harvested in 1963 are reported and two- and three-year averages of yield and moisture content are also included where available.

The primary purpose of the tests is to supply farmers and those associated with agriculture with information on the relative performance of the hybrids entered, when grown under similar environmental conditions. Data included are acre grain yield, moisture percentage of ear corn at harvest, performance score and related agronomic data.

When choosing hybrids for use in this state one should refer to the trials conducted nearest the area in which the hybrid is to be planted.

Location of the 1963 Trials

The exact location of the trials, soil types, and dates of planting and harvesting are given in Table 1. Trials sites located with off-station cooperators were classified as to soil type by the Soil Conservation Service.

The trials were planted in the areas marked on the South Dakota Map. The number of entries in each test ranges from 24 to 46 hybrids. The data are presented in tables following the text.

Weather and Climatic Conditions

Table 2 shows climatic data for the 1963 growing season based upon reports of the Monthly Climatological Data, U. S. Department of Commerce and the supervisor of the Northeast Research Farm. Rainfall data for Area D4 is based on a gauge furnished the cooperator.

A frost occurred at only one location prior to the statewide freeze on October 28. Above average daily temperatures during late September and October enabled many hybrids to produce highly satisfactory yields.

1/ Assistant Agronomist

The assistance of D. B. Shank, D. W. Beatty and Station supervisors Albert Dittman, Quentin Kingsley, Herb Lund and Jake Frederikson is gratefully acknowledged. The help of Mr. and Mrs. Frank Wermers and Beryl Pranger, off-station cooperators, is also appreciated.

TABLE 1. LOCATIONS AND SOIL TYPES OF THE 1963 CORN PERFORMANCE TRIALS

District	County	Location	Post Office	Planted	Harvested
B2	McPherson	North Central Substation	Eureka	May 13	Oct. 16
C1	Spink	Redfield Devel. Farm	Redfield	May 14	-----
C2	Charles Mix	Beryl Pranger, 4 1/2 N.	Platte	May 17	-----
D2	Codington	NE Research Farm	Watertown	May 20	Oct. 17
D3	Brookings	Agronomy Farm	Brookings	May 16	Oct. 22
D4	Hutchinson	Frank Wermers, 1 1/2 E.	Dimock	May 16	Oct. 14-5
E	Clay	SE Research Farm	Beresford	May 15	Oct. 24
B2	Williams Loam				
C1	Beotia-Harmony silty clay loam				
C2	(Reliance-like) silty clay loam				
D2	Kranzberg silt loam				
D3	Vienna loam				
D4	Houdek silt loam				
E	Kranzberg silty clay loam				

Moisture was adequate at all locations except the Area B2 trial at Eureka. From June 9 through July 17 only 0.76 inch of precipitation was recorded, causing severe moisture stress and stunting of the corn plants.

Record corn yields were reported in much of the eastern third of South Dakota where moisture conditions averaged much above normal. Rainfall in excessive amounts occurred at the Area D3 location, Brookings, in July and September. July was also extremely wet at the locations of the Area D2 and D4 trials.

Trials planted at two locations were not harvested because of severe stand reductions; any data obtained would have been of no value. Either pheasant or field mouse damage was the cause at Redfield. Dry weather shortly after germination no doubt affected the trial at Platte.

Hybrid Entry Procedure

Hybrids are entered voluntarily by commercial concerns and they designate the locations where their hybrids are to be tested. Only hybrids that had been registered with the South Dakota State Department of Agriculture the previous year were eligible for entry in the 1963 tests. A nominal fee was charged for each entry in each area except entries included by Experiment Station personnel. Either closed or open-pedigree hybrids were eligible to be entered only once in each area.

A listing of the entries and the areas where they were tested is included in Table 13.

TABLE 2. PRECIPITATION AND TEMPERATURE FOR THE 1963 CORN GROWING SEASON OF SOUTH DAKOTA

Location and district	Month	Precipitation, inches		Total departure	Temperature in degrees F.		
		Month total	Depart- ure from normal		Month mean temp.	Depart- ure from normal	Average departure
Eureka	May	2.69	0.10		54.6	- 1.5	
	June	2.98	- 0.85		68.3	3.3	
B2	July	2.55	0.10		72.2	- 0.2	
	Aug.	3.54	1.13		70.4	- 0.3	
	Sept.	1.66	0.34		61.6	1.5	
	Oct.	0.72	- 0.25		57.0	9.4	
		14.14		0.57	64.0		2.0
	Last freeze 22° - May 22				First frost 23° - Oct. 27		
NE Farm	May	3.54	0.67		52.4	- 3.6	
15N	June	3.22	0.48		66.1	2.2	
	July	5.74	3.07		72.7	0.4	
D2	Aug.	2.51	- 0.27		67.3	- 1.7	
	Sept.	4.33	2.48		60.0	0.1	
	Oct.	0.68	- 0.48		54.5	6.8	
		20.02		5.95	62.2		0.7
	Last freeze 30° - May 23				First frost 23° - Oct. 28		
Brookings	May	2.50	- 0.29		56.5	-1.1	
1E	June	4.40	0.45		69.7	2.6	
	July	12.10	9.95		70.9	- 2.3	
D3	Aug.	1.25	- 1.72		68.8	- 2.4	
	Sept.	4.63	2.60		61.8	0.5	
	Oct.	1.72	0.50		56.1	6.6	
		26.60		11.49	64.0		0.7
	Last freeze 29° - May 23				First frost 32° - Sept. 29		
Dimock	May 16	.60			60.3		
1 1/2 E	June	3.10			73.6		
	July	6.80			77.7		
D4	Aug.	1.50			72.7		
	Sept.	1.20			66.4		
		13.20					
	Last freeze May 23				First frost(Parkston 5E) 31°-Oct. 28		
Center-ville	May	3.09			60.8		
	June	3.53			73.6		
6 SE	July	3.79			76.8		
	Aug.	1.91			72.5		
E	Sept.	4.20			66.8		
	Oct.	1.27			61.1		
		17.79			68.6		
	Last freeze 26° - May 22				First frost 29° - Oct. 28		

Experimental Procedure

The entries included in each test were planted in five or six replications, depending on available space, soil type and other related factors. One replication was planted for public observation and no yield data were taken from this plot. Plots of individual hybrid entries were located at random within each replication. In most trials, plots were two rows wide by ten hills deep. At Eureka they were six hills deep. At Dimock the trial was planted as drilled corn, the rate being approximately 11,200 plants per acre. At the Southeast Farm, Atrazine, at the rate of two pounds per acre was applied following planting for grassy weed control.

The test plots were hand picked separately and weighed. Samples for moisture determination were taken on three replications of the plots. The samples were oven dried at 102^o C. in the laboratory for at least 48 hours, reweighed and the moisture percentages determined.

Measurements of Performance

Yield The yield reported for each hybrid in each test is the average obtained from field weights of all replications, expressed as bushels per acre of No. 2 shelled corn at 15.5 percent moisture. Variations in slope, soil fertility and stand may cause varieties of equal potential to yield differently. Mathematical determinations have been made to ascertain whether yield differences are caused by variations in environment or were true varietal differences.

At the bottom of each yield table is given the minimum yield by which two hybrids must differ for the difference to be considered statistically significant at the five(5) percent level. In other words, the chances are 95 out of 100 that the difference is real, and resulting from a true hybrid difference, rather than chance or accident. If the trials were found to have statistically significant differences between mean yields an additional test, Duncan's Multiple Range Test, was run on the means.

In the interpretation of Duncan's Test, those hybrid mean yields adjacent to the same vertical line are not statistically different in yield. In Table 7, Pioneer 3558, DeKalb 3X3, Pioneer 328, United-Hagie 52B and Funks G-83 are not statistically different in yield from each other. All other varieties below Funks G-83 are significantly lower than Pioneer 3558. These statements hold true only for conditions prevalent in the 1963 trials. Results from only one year do not present as true a picture of yield differences as do average results of three or more years at the same location.

Moisture Content The tables present the moisture content of each entry, expressed as percent of moisture in the ear corn at harvest. Moisture content is inversely related to corn maturity, and because maturity is of primary consideration in South Dakota, these figures are very important when evaluating the various entries.

Performance Rating The two primary results, yield of grain and moisture percentages, are used for determination of this rating. Realizing how important the relationship between these two factors is for sound, dry corn, this rating further aids

in determining not only the yielding capabilities of the entries but also how moisture affects the overall determination of the value for the production of sound corn without additional drying or delayed harvest.

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

The performance rankings that appear in the tables were calculated as follows:

$$\frac{(\text{Yield percentage} \times 6) \text{ plus } (\text{moisture percentage} \times 4)}{10}$$

Stand When missing hills occur at least two possibilities may be indicated: the seed of the entry was unable to produce a good stand under the environmental conditions prevailing for that trial, or something destroyed the young plants. Because this work is designed primarily to test the yield potential of the varieties, corrections in yield were made for missing hills according to the formula:

$$CW = \frac{FW (H - 0.3M)}{(H - M)}$$

where; CW - corrected weight, FW - field weight, H - number of hills planted per plot, and M - number of hills missing. No corrections were attempted for drilled plantings or for minor stand variations, that is, fewer than three stalks per hill in hilled plantings.

Lodging A killing frost was not recorded at any location prior to harvesting and stalk lodging was almost non-existent. Root lodging was minor in most cases despite heavy rains and strong winds on several occasions. One serious case of root lodging was evident in Area E, presumably due to the western corn rootworm, a problem in the southeastern corner of the state. The infestations occurred in irregular smaller patches of the field while the same entries in other areas of the field had little if any lodging.

Average Yield Over a Period of Years Corn Performance Trials have been conducted on a fee basis since 1961. Therefore comparisons of trials prior to 1961 are not made in this publication.

Data are presented for entries which have been in the trials up to three years, 1961-1963. In any one year an entry may fluctuate in its relative value compared to other years because of specific environmental conditions under which the trial was conducted. Averages for a three-year or longer period level out these environmental variations.

Using the Presented Tables In the mid-west corn belt yield is generally given first consideration, moisture being of secondary or lesser consideration. In South Dakota conditions are generally quite different from those found in the central corn belt. Many of the crop-adaptation areas have conditions common to the northern plains; limited frost-free growing periods, limited precipitation and high temperatures.

Northern plains conditions require corn hybrids that will yield satisfactorily and especially produce corn that can be stored without additional costly handling. The performance score provides information on both these factors in a weighted fashion.

In choosing a hybrid one should first check those yielding best. Then one can look for the entries with below average moisture. Having done this, compare those that are both above average in yield and below-average in moisture. The results will generally be similar to that calculated by the performance score.

It is sound practice to plant more than one hybrid. Maturity, yield, quality and standability all merit consideration when buying seed corn. When planting a new hybrid the acreage should be limited until its adaptability to the environment on the particular farm is known.

CROP ADAPTATION AREAS OF SOUTH DAKOTA

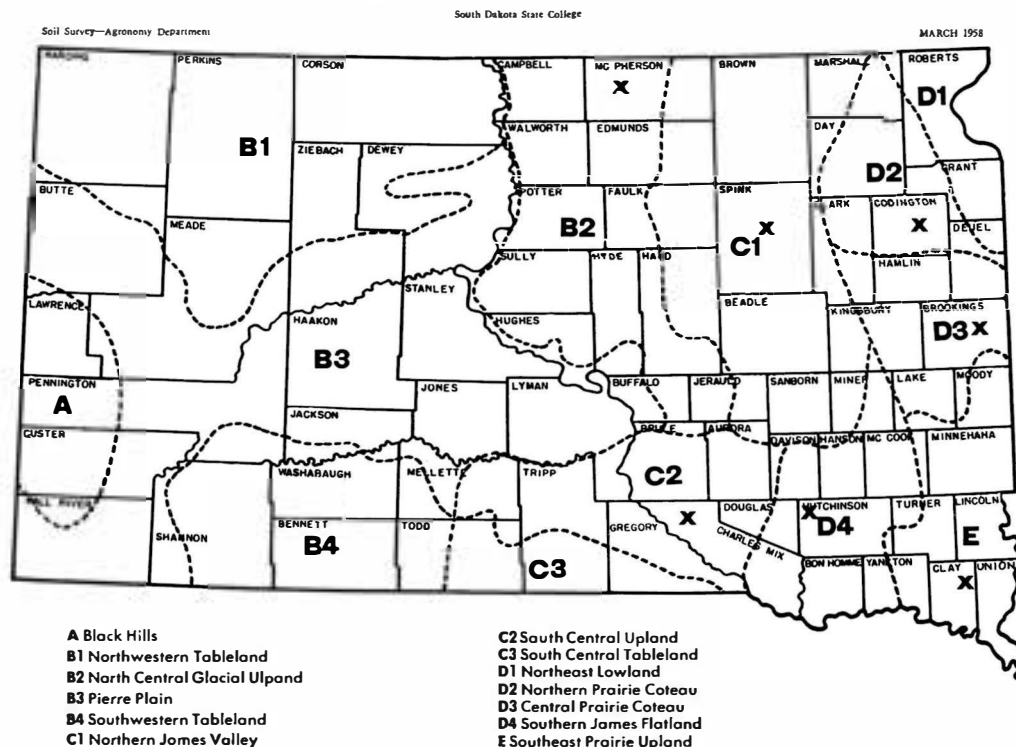


TABLE 3. CORN PERFORMANCE TRIAL, AREA B₂,
NORTH CENTRAL SUBSTATION, EUREKA, 1962-63¹

Variety	Performance rating	Yield, bu/ac		Percent moisture
		1962	1963	
SD 240	1	62.7	31.3	15.3
Pioneer 391	2	53.1	28.8	15.7
Cargill 577	5	66.0	28.2	20.6
Funks G-10A	4		28.2	19.3
SD 250	3	61.7	27.8	17.2
Pioneer 385	13	72.6	27.4	21.3
Sokota 225	7		26.7	13.7
Pioneer 3862	6	54.6	26.7	13.7
Funks G-11A	9		26.7	15.4
Cargill 590	8	64.9	26.7	19.3
Master F-34	11		26.3	24.1
SD Exptl 40	10	59.1	26.2	13.8
Pioneer 384	16	63.4	25.9	19.3
Master F-30	14		25.9	15.4
Master F-31A	15		25.3	14.4
DeKalb 61	21		25.3	22.6
DeKalb 56	17	61.5	25.2	16.2
DeKalb 59	22	66.1	25.0	21.6
Sokota 215	12		24.8	13.9
Pioneer 3812	19		24.7	17.4
Cargill 533	18		24.6	16.5
Disco 900	20		24.0	15.7
Sokota 255	23	58.6	23.7	17.3
Master F-35	24		22.8	15.1
Pioneer 388	25	57.9	22.7	14.7
SD 220	26	54.2	22.6	14.3
Funks G-18	29		22.2	24.1
SD 210	27	48.3	21.9	13.4
DeKalb 57	28		21.9	20.9
Master F-70	30		21.6	23.7
	Mean		25.3	17.1
	L.S.D.	.05	N.S.	

TABLE 4. CORN PERFORMANCE TRIAL, AREA D2,
NORTHEAST RESEARCH FARM, WATERTOWN, 1961-63

Variety	Perfor- mance rating	Yield, bu/acre			Percent moisture	Statistical significance using Duncan's Multiple Range Test at 5% level
		1961	1962	1963		
Pioneer 3658	2			94.9	35.9	
Funks G-17A	8			91.8	36.3	
Pioneer 385	3		52.9	91.3	31.7	
Funks G-10A	5			91.2	33.4	
SD 250	1	61.4	48.3	90.7	30.1	
SD Expt1 39	4		54.1	90.5	30.9	
DeKalb 57	7			90.4	33.8	
Funks G-18A	9			89.6	34.1	
Pioneer 3812	6			88.5	30.8	
Sokota 255	13			88.0	35.8	
Master F-70	16			86.7	37.4	
SD 240	12	58.1	46.4	86.6	33.4	
DeKalb 59	11			86.3	32.8	
Master F-34	10			85.6	31.0	
Pioneer 384	14	65.9	47.4	83.7	30.8	
Cargill 590	10		53.3	81.5	32.1	
DeKalb 56	15		48.2	80.9	28.8	
SD Expt1 26	22		69.0	80.3	33.3	
Master F-30	17			79.3	28.6	
Master F-35	20			78.0	29.6	
Pioneer 3862	18		47.8	77.1	26.4	
DeKalb 45	23			76.3	29.8	
Sokota 215	25			76.1	31.6	
Pioneer 388	21	58.6	48.2	76.0	27.8	
Disco 900	27			75.3	30.9	
Master F-31A	24			75.2	29.4	
Sokota 225	26			73.0	27.8	
SD 220	28	62.5	47.0	71.0	27.4	
SD 210	29	63.4	45.0	70.0	27.0	
			Mean	82.9	31.3	

Yield differences of less than 6.9 bushels per acre are not significant

TABLE 5. TWO AND THREE-YEAR AVERAGE YIELD AND MOISTURE PERCENTAGES
OF HYBRID ENTRIES INCLUDED IN THE AREA D2 TRIAL FROM 1961-1963

Variety	Yield, bu/ac		Percent moisture	
	1961-63	1962-63	1961-63	1962-63
Cargill 590		67.4		38.0
DeKalb 56		64.6		37.1
Pioneer 384	65.7	65.6	39.5	38.6
Pioneer 385		71.6		39.9
Pioneer 3862		62.5		35.1
Pioneer 388	60.9	62.1	36.4	34.9
Sokota 255		66.6		41.6
SD 210	59.5	57.5	34.1	32.7
SD 220	60.2	59.0	33.9	32.1
SD 240	63.7	66.5	39.7	38.8
SD 250	66.8	69.5	39.0	37.4
SD Expt1 26		64.3		38.9
SD Expt1 39		72.3		35.5

TABLE 6. CORN PERFORMANCE TRIAL, AREA D3,
AGRONOMY FARM, BROOKINGS, 1961-1963

Variety	Perfor- mance rating	Yield, bushels/acre			Percent moisture	Statistical significance using Duncan's Multiple Range Test at 5% level
		1961	1962	1963		
Cargill 680	1		85.5	119.8	31.5	
Pioneer 362	8	97.7	84.2	115.8	32.4	
DeKalb 222	3		87.8	115.0	28.1	
Pioneer 376	6		92.0	114.8	29.4	
Sokota 407	4		83.5	114.3	28.0	
Pioneer 3658	2			113.7	25.3	
Cargill 666	10			113.1	30.9	
Pioneer 368-A	7			113.0	29.0	
Pioneer 374	5	97.3	87.3	112.1	26.2	
Disco 1030	11			111.7	31.8	
Cargill 577	9		87.2	108.6	25.3	
Pioneer 3775	15		82.0	107.7	30.4	
DeKalb 251	20		90.9	107.0	31.1	
United-Hagie 3H39	22			105.9	30.8	
United-Hagie WW20	16			105.1	27.7	
Disco 108-AA	17		84.7	104.6	27.6	
Funks G-17A	23			104.4	29.9	
Funks G-32	27			103.5	31.2	
Master F-70	25			103.1	29.0	
DeKalb 59	14		85.6	103.0	24.5	
SD Exptl 28	12			102.0	22.1	
SD Exptl 41	13			101.9	22.6	
Pioneer 385	19			101.6	25.3	
Master F-80	29			101.0	30.5	
SD 400	21		74.8	100.8	25.3	
SD 270	18	90.2	74.4	100.4	23.8	
Funks G-18A	28			99.5	28.2	
Cargill 677	30			99.3	29.3	
Master F-102	33			99.3	30.1	
Disco 101-A	31	96.6	81.7	98.2	28.5	
Cargill 590	24		83.9	97.9	23.2	
Funks G-34	35			97.0	29.7	
Sokota 255	26		79.1	96.9	23.0	
United-Hagie 1270	32			92.2	22.4	
DeKalb 61	37		84.1	91.9	27.2	
SD 240	36	74.8	76.4	91.5	24.5	
SD 250	34	88.2	78.9	90.6	22.7	
Sokota 215	38			79.4	21.6	
Sokota 225	39			74.6	23.0	
			Mean	102.9	27.2	

Yield differences of less than 6.0 bushels per acre are not significant

TABLE 7. CORN PERFORMANCE TRIAL, AREA D4
FRANK WERMERS FARM, DIMOCK, 1963

Variety	Performance rating	Yield, bu/ac		Statistical significance using Duncan's Multiple Range Test at 5% level
		1962	1963	
Pioneer 3558	1		130.9	20.8
DeKalb 3X3	2	66.2	120.3	24.2
Pioneer 328	3	76.4	119.8	25.3
United-Hagie 52B	4		118.4	26.3
Funks G-83	9		116.3	26.6
Sokota 645	8	71.8	115.5	25.4
Funks G-76	6		114.1	23.3
Green Acres 004	13		112.5	26.2
Green Acres 446	18	65.1	112.0	27.6
Pioneer 362	5	65.7	110.3	18.6
DeKalb 488	12	66.9	110.0	22.9
Pioneer 354	10		109.4	21.4
Sokota 407	7		108.5	17.1
United-Hagie 3H40	16		108.4	23.2
DeKalb 441	19		107.6	23.2
Cargill 255	14		107.0	21.1
Green Acres 003	20		107.0	25.6
Iowa 5063	15	72.2	106.9	21.1
Disco 1090	17		106.5	21.4
Sokota 619	11	59.3	106.5	18.7
United-Hagie 158	21		105.2	24.5
Royal 617	24		103.0	22.9
Funks G-32	22		102.5	21.7
SD 604	23	59.9	102.1	21.8
Funks G-75A	27		100.7	22.7
Master F-102	25		99.1	19.0
Pioneer 3618	26	66.2	98.6	18.6
DeKalb 440	32	72.1	97.2	23.5
Cargill 240	30		97.1	21.9
Sokota 625	33	66.9	96.6	23.3
Pioneer 354-A	29		96.4	21.0
SD 420	28	62.3	96.3	20.8
SD Expt1 27	34	61.7	95.1	22.1
Master F-80	31		94.2	19.6
Disco 111-AA	36		90.9	23.0
Master F-90	35		90.2	20.3
Nebraska 202	38	64.9	83.1	21.1
SD 400	37	55.8	82.2	16.0
Mean			104.7	22.2

Yield differences of less than 15.1 bushels per acre are not significant

TABLE 8. CORN PERFORMANCE TRIAL, AREA E, SOUTHEAST
RESEARCH FARM, BERESFORD, 1961-1963

Variety	Perfor- mance rating	Yield, bushels/acre			Percent moisture	Statistical significance Using Duncan's Multiple Range Test at 5% level
		1961	1962	1963		
Pioneer 3558	1			123.5	18.1	
United-Hagie 158	2			120.9	24.9	
Pioneer 321	4			117.5	25.4	
Pioneer 3304	3			116.4	23.9	
DeKalb 3X1	5		131.3	112.2	22.3	
Green Acres 446	14	82.6	118.0	110.4	26.1	
Funks G-93	8			109.8	22.7	
Pioneer 328	11	86.4	116.5	109.5	23.6	
DeKalb 3X2	9		116.1	109.2	22.5	
Sokota 645	10		117.4	109.0	22.6	
Disco 112-A	6	84.7	120.1	107.8	17.8	
Pioneer 318-A	17		127.5	106.4	24.7	
DeKalb 441	7			106.3	18.3	
Iowa 5063	12		119.3	105.8	19.6	
DeKalb 661	22		120.3	104.2	24.5	
Sokota 619	13		117.4	103.6	17.9	
SD Expt1 27	16	90.0	108.1	102.4	19.3	
Pioneer 329	15	88.0	117.8	102.4	18.1	
Disco 1090	18			102.0	20.1	
United-Hagie 52B	31			101.9	26.1	
Funks G-72	21			101.3	20.3	
SD 620	24		101.5	100.5	21.6	
SD Expt1 38	20		112.7	100.5	19.2	
SD Expt1 42	25			99.0	19.9	
Master F-102	19			99.0	17.2	
Tri-State 89	23	86.5		99.0	19.7	
Tri-State 80B	30			98.9	22.1	
Funks G-75A	27			98.6	21.2	
SD 622	26	88.0	109.0	98.5	21.0	
Funks G-83	34			98.3	23.0	
Sokota 625	28		100.3	97.4	19.9	
Tri-State 88	32			96.8	20.8	
Cargill 270	33		112.5	96.5	20.7	
Cargill 259	29		118.6	96.1	18.8	
Green Acres 698	37			95.1	23.6	
Green Acres 004	39	83.6	110.2	94.7	23.4	
Green Acres 003	38			94.2	22.8	
Green Acres 674	43	65.3		94.1	27.7	
Master F-80	35			93.0	17.2	
Royal 617	36			92.3	20.1	
Master F-106A	40			90.2	19.0	
Nebraska 202	42		112.2	88.7	20.3	
Master F-90	41			87.9	17.0	
United-Hagie 3H40	45			86.4	22.2	
SD 604	44	86.2	106.4	85.5	19.8	
Green Acres 395	46	99.3		85.1	24.1	
			Mean	101.1	21.3	

Yield differences of less than 11.1 bushels per acre are not significant

TABLE 9. TWO- AND THREE-YEAR AVERAGE YIELD AND MOISTURE PERCENTAGES
OF HYBRID ENTRIES INCLUDED IN THE AREA D3 TRIAL FROM 1961-1963

Variety	Yield, bu/ac		Percent moisture	
	1961-63	1962-63	1961-63	1962-63
Cargill 577		97.9		28.4
Cargill 590		90.9		25.2
Cargill 680		102.7		34.0
DeKalb 59		94.3		29.1
DeKalb 61		88.0		29.9
DeKalb 222		101.4		30.8
DeKalb 251		98.9		34.6
Disco 101-A	92.2	90.0	30.5	31.1
Disco 108-AA		94.7		30.3
Pioneer 362	99.2	100.0	35.1	35.1
Pioneer 374	98.9	99.7	30.2	30.1
Pioneer 376		103.4		31.5
Pioneer 3775		94.9		32.7
Sokota 255		87.0		26.8
Sokota 407		98.9		30.6
SD 240	80.9	84.0	26.9	26.5
SD 250	85.9	84.8	26.5	25.5
SD 270	88.3	87.4	27.4	27.4
SD 400		87.8		28.8

Table 10. TWO-YEAR AVERAGE YIELD AND MOISTURE PERCENTAGES OF
HYBRID ENTRIES INCLUDED IN THE AREA D4 TRIAL FOR 1962 AND 1963

Variety	Yield, bu/ac	Percent moisture
	1962-63	1962-63
DeKalb 3X3	93.3	24.9
DeKalb 440	84.7	25.5
DeKalb 488	88.5	25.7
Green Acres 446	88.6	29.4
Iowa 5063	90.0	23.6
Nebraska 202	74.0	22.4
Pioneer 328	98.1	27.8
Pioneer 3618	82.4	21.1
Pioneer 362	88.0	21.8
Sokota 619	82.9	20.8
Sokota 625	81.8	25.6
Sokota 645	93.7	27.2
SD 400	69.0	17.8
SD 420	79.3	23.1
SD 604	81.0	23.9
SD Expt1 27	78.4	22.7

TABLE 11. TWO- AND THREE-YEAR AVERAGE YIELD AND MOISTURE PERCENTAGES
OF HYBRID ENTRIES INCLUDED IN THE AREA E TRIAL FROM 1961-1963

Variety	Yield, bu/ac		Percent moisture	
	1961-63	1962-63	1961-63	1962-63
Cargill 259		107.4		22.8
Cargill 270		104.5		24.9
DeKalb 3X1		121.8		25.2
DeKalb 3X2		112.7		26.5
DeKalb 661		112.3		26.3
Disco 112-A	104.2	114.0	21.5	21.4
GreenAcres 004	96.2	102.5	27.3	27.4
GreenAcres 395		92.2		24.9
GreenAcres 446	103.7	114.2	28.3	27.8
GreenAcres 674		79.7*		28.7*
Iowa 5063		112.6		21.9
Nebraska 202		100.5		24.1
Pioneer 318-A		117.0		26.5
Pioneer 328	104.1	113.0	26.4	26.1
Pioneer 329	102.7	110.1	23.0	23.7
Sokota 619		110.5		21.6
Sokota 625		98.9		24.8
Sokota 645		113.2		25.2
SD 604	92.7	96.0	23.9	24.2
SD 620		101.0		26.5
SD 622	98.5	103.8	24.9	24.7
SD Expt1 27	100.2	105.3	23.0	23.5
SD Expt1 38		106.6		21.6
Tri-State 89		92.8*		21.6*

* - Not entered in 1962 trial.

TABLE 12. TWO-YEAR AVERAGE YIELD AND MOISTURE PERCENTAGES OF
HYBRID ENTRIES INCLUDED IN THE AREA B2 TRIAL FOR 1962 AND 1963

Variety	Yield, bu/ac	Percent moisture
	1962-63	1962-63
Cargill 533	45.3	24.9
Cargill 577	47.1	29.3
Cargill 590	45.8	26.7
DeKalb 56	43.4	24.3
DeKalb 59	45.6	30.8
Pioneer 384	44.7	26.7
Pioneer 385	50.0	28.1
Pioneer 3862	40.7	21.2
Pioneer 388	40.3	21.6
Pioneer 391	41.0	22.5
Sokota 255	41.2	27.3
SD 210	35.1	21.3
SD 220	38.4	22.8
SD 240	47.0	25.3
SD 250	44.8	26.5
SD Expt1 40	42.7	23.2

TABLE 13. THE HYBRIDS ENTERED FOR TESTING IN THE 1963 CORN PERFORMANCE TRIALS AND THE TABLES IN WHICH RESULTS APPEAR

Variety	Table	Variety	Table	Variety	Table
Cargill 240	7	Funks G-83	7,8	Pioneer 388	3,4
Cargill 255	7	Funks G-93	8	Pioneer 391	3
Cargill 259	8				
Cargill 270	8	Master F-30	3,4	Royal 617	7,8
Cargill 533	3	Master F-31A	3,4		
Cargill 577	3,6	Master F-34	3,4	Sokota 215	3,4,6
Cargill 590	3,4,6	Master F-35	3,4	Sokota 225	3,4,6
Cargill 666	6	Master F-70	3,4,6	Sokota 255	3,4,6
Cargill 677	6	Master F-80	6,7,8	Sokota 407	6,7
Cargill 680	6	Master F-90	7,8	Sokota 619	7,8
		Master F-102	6,7,8	Sokota 625	7,8
		Master F-106A	8	Sokota 645	7,8
DeKalb 45	4				
DeKalb 56	3,4				
DeKalb 57	3,4	GreenAcres 003	7,8	Tri-State 80B	8
DeKalb 59	3,4,6	GreenAcres 004	7,8	Tre-State 88	8
DeKalb 61	3,6	GreenAcres 395	8	Tre-State 89	8
DeKalb 222	6	GreenAcres 446	7,8		
DeKalb 238	a	GreenAcres 674	8	United-Hagie 1270	6
DeKalb 251	6	GreenAcres 698	8	United-Hagie WW20	6
DeKalb 440	7			United-Hagie 3H39	6
DeKalb 441	7,8	Iowa 5063	7,8	United-Hagie 3H40	7,8
DeKalb 488	7			United-Hagie 52B	7,8
DeKalb 661	8	Nebraska 202	7,8	United-Hagie 158	7,8
DeKalb 3X1	8				
DeKalb 3X2	8	Pioneer 318-A	8	SD 210	3,4
DeKalb 3X3	7	Pioneer 321	8	SD 220	3,4
		Pioneer 328	7,8	SD 240	3,4,6
Disco 900	3,6	Pioneer 329	8	SD 250	3,4,6
Disco 101-A	6	Pioneer 3304	8	SD 270	6
Disco 1030	6	Pioneer 3445	a	SD 400	6,7
Disco 108-AA	6	Pioneer 354	7	SD 420	7
Disco 1090	7,8	Pioneer 354-A	7	SD 604	7,8
Disco 111-AA	7	Pioneer 3558	7,8	SD 620	8
Disco 112-A	8	Pioneer 3618	7	SD 622	8
		Pioneer 362	6,7		
Funks G-10A	3,4	Pioneer 3658	4,6	SD Exptl 26	4
Funks G-11A	3	Pioneer 368-A	6	SD Exptl 27	7,8
Funks G-17A	4,6	Pioneer 374	6	SD Exptl 28	6
Funks G-18A	3,4,6	Pioneer 376	6	SD Exptl 36	8
Funks G-32	6,7	Pioneer 3775	6	SD Exptl 37	a
Funks G-34	6	Pioneer 3812	3,6	SD Exptl 38	8
Funks G-72	8	Pioneer 384	3,6	SD Exptl 39	4
Funks G-75A	7,8	Pioneer 385	3,4,6	SD Exptl 40	3
Funks G-76	7	Pioneer 3862	3,4	SD Exptl 41	6
				SD Exptl 42	8

a - Entered in a trial not harvested