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1976 Corn Performance Trials

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South Dakota State University

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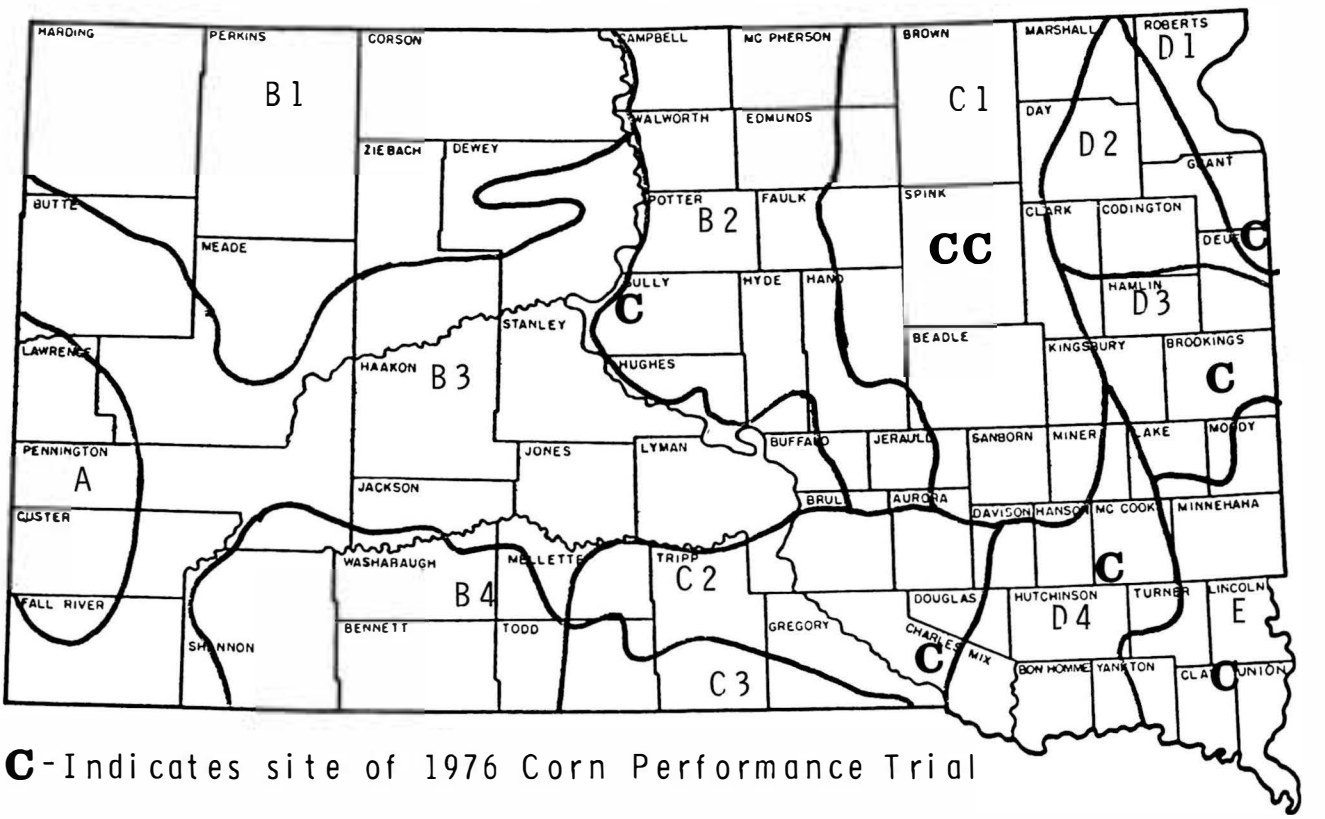
South Dakota State University
Brookings

CROP ADAPTATION AREAS



C-Indicates site of 1976 Corn Performance Trial

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The relative performances' of corn hybrids grown in 1976 under similar environmental conditions are evaluated in this report. Information in the accompanying tables includes grain yields in bushels per acre, moisture percentage of either ear corn or shelled corn at harvest, performance scores and other related information. Records of the corn hybrids harvested in 1976 and available two-, three-, and four-years averages of yield moisture and stalk lodging percentages are also presented. The trials reported were conducted under the Plant Science Department program in Crop Performance Testing, Agricultural Experiment Station, South Dakota State University.

Location of the 1976 Trials

Trials were located in the crop adaptation areas marked on the accompanying South Dakota map. The exact location of each trial and dates of seeding and harvesting are included in Table 1. The trials at Agar (Area B2) and Gary (Area D1) were abandoned in late August. The yield results for the trials at Beresford and Geddes were so variable that little reliable information was obtained and they were not included. The soil classification, laboratory analyses of soil samples taken and fertilizer applied at each site is given in Table 2.

Weather and Climatic Conditions

Climatic data (Table 3) for the 1976 corn growing season, May-October, are based upon information obtained from a U.S. Weather Bureau station reasonably near each trial. Data are presented for all but the Geddes area. Stations are located at all other sites except the Agar and Deuel County trials so data from official stations at Onida 4NW and Milbank are presented for these two trials, respectively. Precipitation quantities would vary from the actual site to the recording station, especially the Deuel County site, but temperatures are comparative over a much wider area and considered applicable to the trial area.

Recorded precipitation totals at all sites were less than their seasonal averages. May precipitation was quite limited across most of the state. Only in the southeastern area was there much beneficial rainfall. Germination was slow and spotted at most sites except the southeastern trials. The emergence was especially slow and uneven at Gary and the dryland trial at Redfield. Stands at Gary were down a third or more from the desired populations and the stages of plant growth were quite

The assistance of the following individuals is appreciated: D. B. Shank and J. R. Jenison of the Plant Science Department; Joe Giles, Burton Lawrensen, Herb Lund, Robert Morris, Delbert Robbins and Lucian Edler of the stations; and cooperators William Fijala, John Heaton, Clifford Hofer and Mike Mikkelson.

Table 1. Location of the 1976 Corn Performance Trials

Area	County	Location	Post Office	Dates Seeded	Dates Harvested
B2	Sully	M. Mikkelson Farm, 7W, 1N	Agar	May 17	----
C1-dry	Spink	James Valley Res. Farm, 6E	Redfield	May 18	Oct. 29
C1-irr.	Spink	James Valley Res. Farm, 6E	Redfield	May 18	Oct. 28
C2	Charles Mix	Wm. Fijala Farm, 2E, 1N	Geddes	May 20	Oct. 6
D1	Deuel	John Heaton Farm, 1W, 5N	Gary	May 10	----
D3	Brookings	Plant Science Farms, 2NE	Brookings	May 12	Oct. 8
D4	McCook	Clifford Hofer Farm, 1S	Bridgewater	May 11	Oct. 7
E	Clay	SE Experiment Farm, 7W, 3S	Beresford	May 13	Oct. 27

variable from row to row and among plants within rows. The stages of growth were also quite varied in the dryland Redfield trial and the high moisture content at harvest is evidence of the general retarding of the plant growth all season.

In no instance was rainfall near or above normal at stations where departures were available. As the season progressed, the ever increasing drouth conditions were accompanied by high-velocity drying winds much of the mid-summer and dried up plants rapidly. At all but one location, over half the days in July and August showed recorded temperatures of 90° or higher (Table 3). It is ironic that the season temperatures were below normal in May, September and October but above normal in the remaining months of the crop year.

The timeliness of precipitation, though not in great amounts, was the reason for the apparent success and yields in the trials for which data are presented. The trial at Redfield that was to be irrigated received only one water application, about 2 inches in early July. All pumping from the river source for irrigation was halted in mid-July as domestic use down the river had prior water rights.

The drouth induced stresses hastened ripening or drying of some hybrids. Lodging occurred in varying amounts. In the data presented, lodging was serious at the D3 site, Brookings. Lodging was even more serious in the Beresford and Geddes trials.

All trials were seeded after the last killing frost in the spring. Killing frosts in the fall did not occur until September 22 at any location. The date of the first frost and below normal temperatures in October did not lead to rapid dry-down of standing corn. However, drouth hastened maturity of adapted hybrids. Late maturing lines in farmer fields were probably chopped for forage earlier in the fall. The quality of corn was variable between varieties at some locations and between the same varieties at different locations.

Table 2. Laboratory analyses, soil classification and fertilizer applied to the 1976 corn performance trial fields.

Area	Soil Classification	% O.M.	P lb/A	K lb/A	pH	Preparation or method	lb/A N	lb/A P	lb/A K
B2	Agar SiCL	2.6	23	870	7.1	Plowed and disked (oats)	0	0	0
C1-dry	Beotia SiCl	2.4	33	650	7.1	Plowed, chiseled & disced	40	0	0
C1-irr.	Beotia SiCl	3.0	61	720	7.1	Plowed, chiseled & disced	110	0	0
C2	Highmore SiCl	3.3	140	1000	6.8	Plowed & disced	0	0	0
D1	Forman SiL	2.7	26	400	6.5	Plowed & disced (oats)	0	0	0
D4	Clarno SiCl	2.5	25	590	6.7	Plowed & disced (soybeans)	50	0	0
E	Egan SiCl	2.9	23	860	6.8	Plowed & disced (soybeans)	100	40	0

Table 3. Temperature and precipitation data for the 1976 corn growing season in South Dakota

Location and District	Month	Month mean temp.	Departure from normal	Av. departure	Days 90°+	Month total	Departure from normal	Total departure
		Temperature, degrees F				Precipitation, inches		
Onida 4NW[a]	May	58.9	b		--	0.87	b	
	June	72.3			11	0.82		
B2	July	78.8			22	0.60		
	Aug.	78.5			22	0.70		
	Sept.	65.8			10	1.06		
	Oct.	45.5			--	0.40		
	First frost	29° - Sept. 23				4.45		
Redfield 6E	May	55.5	b		--	0.53	b	
	June	70.4			11	3.72		
C1	July	75.3			17	1.41		
	Aug.	75.5			18	0.54		
	Sept.	61.2			5	1.76		
	Oct.	41.8			--	1.00		
	First frost	26° - Sept. 23				8.96		
Milbank	May	55.5	- 2.2		--	0.16	- 2.89	
	June	70.1	2.8		11	0.45	- 3.86	
D1	July	74.0	1.2		16	0.52	- 2.30	
	Aug.	74.3	2.8		16	0.79	- 1.78	
	Sept.	60.5	- 0.5		4	1.45	- 0.42	
	Oct.	42.9	- 8.6	- 0.7	--	0.17	- 1.38	-12.63
	First frost	30° - Sept. 23				3.54		
Brookings	May	54.2	- 2.0		--	0.43	- 2.77	
2NE	June	67.8	2.1		2	2.68	- 1.90	
	July	73.1	2.0		11	1.51	- 1.33	
D3	Aug.	71.4	1.8		11	2.02	- 0.84	
	Sept.	58.9	- 0.1		3	1.45	- 1.23	
	Oct.	40.9	- 8.6	- 0.8	--	0.20	- 1.27	- 9.34
	First frost	27° - Sept. 23				8.29		
Bridgewater	May	59.2	b		--	1.76	b	
	June	71.0			10	1.84		
D4	July	77.1			22	2.80		
	Aug.	76.8			22	0.83		
	Sept.	65.0			5	1.86		
	Oct.	45.9			--	1.22		
	First frost	30° - Sept. 25				10.31		
Centerville	May	56.8	- 3.9		1	1.96	- 1.52	
6 SE	June	70.3	0.1		8	1.31	- 3.39	
	July	75.4	0.1		15	1.79	- 1.32	
E	Aug.	73.6	- 0.3		17	1.05	- 1.99	
	Sept.	62.0	- 1.7		4	1.14	- 1.54	
	Oct.	44.0	- 9.2	- 2.5	--	0.57	- 1.08	-10.84
	First frost	26° - Sept. 30				7.82		

a - All data based upon reports of Monthly Climatological Data, U.S. Department of Commerce, Ashville, NC.

b - Departures are figured from 30 years data. This station has not been in operation for that long a period.

Hybrid Entry Procedure

Hybrids entered are submitted by 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 31, 1976 were eligible to be entered. A fee was charged for each entry in each area except for hybrids 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 seven entries from one concern were accepted for each location. A listing of the firms, with brands and varieties entered, is presented in Table 14.

In prior years check entries used were released hybrids of the South Dakota Agricultural Experiment Station. A change was made in 1975 to include hybrids made up of released inbreds commonly used by the industry. Several of these were included in each trial as Check 1, 3, 5, etc. The identities are as follows:

Check 1	B73 x Mo17Ht	Check 5	(W64Ht x W117Ht)(W153R x A632Ht)
Check 2	A632Ht x A619Ht	Check 6	(A641 x A635)(W153R)
Check 3	W153R x A632Ht	Check 7	A641 x Co109
Check 4	W64AHt x W117Ht	Check 8	A632Ht x Co109

The hybrids included are the joint effort of the Plant Science Department and Clyde Black & Sons, Inc., Ames, Iowa. Seed was provided by Clyde Black & Sons, Inc.

Several experiment hybrids have been included by Agricultural Experiment Station personnel for several years and have shown promise. The pedigrees of the hybrids included over a period of years is listed below:

SDAES Ex 82	(W64AxSD10)(W117)	SDAES Ex 106	(SD early 2-ear syn.)
SDAES Ex 94	(A632xB14A)(SD23xOh43P-1)	SDAES Ex 147	(SD10xA632)(SDP232xSDP2)
SDAES Ex 94A	(A632xB14A)(SD23xOh43P-2)	SDAES Ex 199	(SDP236mxSDP2)(A632)
SDAES Ex 100	(W117xSD9)(SD24)	SDAES Ex 204	(SDP309xA632)
SDAES Ex 102	(W117xSD25)	SDAES Ex 204A	(SDP236mxSDP309)(A632)
SDAES Ex 103	(SD25xA632)	SDAES Ex 206	(SDP31WxB14A)
SDAES Ex 104	(W64AxSD17A)	SDAES Ex 207	(SDP316WxB73)
SDAES Ex 105	(SD22xA632)	SDAES Ex 208	(SDP309xN28)

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 determined the plot size and number of replications. The plot size, populations and related data are presented in Table 4.

Recommended insecticides were used at all locations for corn rootworm control. The product used depended upon the prior history of the field and insecticide used in past years. 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.

The trials were seeded as drilled corn using 31-cell cone seeders mounted above commercial flexi-planter units with double disc openers. The planting rate was 15% more kernels than the number of plants desired. Plots were thinned to the desired stand where necessary. The stands at Redfield were lower than desired because of soil crusting that occurred just as the kernels were germinating and emerging. The dry weather contributed to some decline in desired populations,

especially at Gary, but in the face of the severe drouth the reduction was perhaps more beneficial than realized. Where two populations were grown (Table 4) it was felt that the lower levels might be favored in the presence of the severe stress that occurred in the past two years. However, no significant differences have been found in either of the past two years where different populations of the same hybrid were grown in the same trial.

Table 4. Field methods for the 1976 corn trial sites.

Area	Table No.	Number of Replications Harvested	Method of Seeding	Population Obtained	Row Number of	Row Width, inches	Row Length, feet
B2	--	--	drilled	10,315	1	40	36
C1-dry	6	5	drilled	11,295	1	36	36
C1-irr.	7	3	drilled	16,335	1	36	32
C1-irr.	7	3	drilled	19,055	1	36	32
C2	--	4	drilled	11,250	1	40	36
D1	--	--	drilled	9,935	1	38	36
D1	--	--	drilled	11,460	1	38	36
D3	10	3	drilled	11,800	1	36	32
D3	10	3	drilled	15,880	1	36	32
D4	12	3	drilled	13,775	1	38	36
D4	12	3	drilled	16,430	1	38	36
E	--	2	drilled	15,790	1	30	32
E	--	--	drilled	19,600	1	30	32

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 determine whether yield differences obtained were caused by variations in environment or were true varietal differences. The variations were great in some of the 1976 trials.

The metric system of weights and measures will soon be in nationwide usage. To convert data in these tables to kilograms/hectare (kg/ha) use the following methods:

I - 1 bu. #2 shelled corn = 54 lb.; 1 lb. = .454 kilograms; 1 hectare - 2.471 acres
so: 54 x .454 x 2.471 = 60.6 x B/A yield = kilograms/hectare

II - or assuming a yield of 45.5 B/A from the tables
Step 1 = 45.5 B/A x 54 lb/B = 2457 lb/acre
Step 2 = 2457 lb/acre x 1.121 = 2754 kilograms/hectare

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

Dropped ears were not a common problem, in spite of some high-velocity winds early in the harvest season. No effort was made to include these ears as it is a penalty of machine harvesting in commercial operations.

Table 5. Harvest methods and moisture determinations for the 1976 corn trials

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

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 operation delays and reduction of additional drying costs are possible if an operator can produce sound, dry corn. Grain yield and moisture percentages are of prime importance. To the cash grain operator who does not turn livestock into his fields after harvest the better stalks stand so that the ears will go through his harvesting machinery, the higher will be his return per acre. Because of the importance of the three factors--yield, dry matter and upright stalks--the three results in the tables presenting this information are used to determine a rating or performance score.

The yields in each test were converted to percentages by comparing them to the mean yield of the 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 could 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:

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

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, i.e., limited frost-free growing periods, limited precipitation and higher summer temperatures. Corn hybrids that provide satisfactory yields of harvestable corn that can be stored without additional costly handling are desirable. The performance score provides information on these factors in a weighted fashion.

In choosing a hybrid, first check those yielding the most. Then look for entries with below average moisture and good standability. The results will generally be similar to that of the performance score. Finally, check the performance score over "a several year period", if available, as the average of several years is considerably more reliable than the 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.

Table 6. 1976 Corn Performance Trial, Area C1(dryland), James Valley Research Farm, Redfield

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
PIONEER 3965	3X	39.9	0.0	1.2	0.0	25.3	1
PAYCO SX680	2X	37.5	0.0	0.0	0.0	29.3	2
SDAES PP159	3X	36.9	0.0	2.1	0.0	28.8	3
SDAES PP147	4X	34.9	0.0	1.3	0.0	27.8	4
TROJAN TXS 99	2X	31.3	0.0	0.0	0.0	28.4	5
FUNKS G-4141	2X	31.1	0.0	0.0	0.0	29.4	6
SOKOTA SS-51	2X	31.1	0.0	0.0	0.0	31.3	9
CHECK =4	2X	30.8	0.0	0.0	0.0	30.0	8
CENEX 3015	3X	30.4	0.0	0.0	0.0	27.8	7
ACCO LC 1901	2X	30.0	0.0	0.0	0.0	30.0	11
AGSCO 3X8	3X	29.8	0.0	1.9	0.0	27.8	10
PIONEER 371C	2X	29.0	0.0	0.0	0.0	34.3	13
TROJAN TXS 94	2X	28.5	0.0	0.0	0.0	31.5	12
ACCO LC 2301	2X	28.3	0.0	0.7	0.0	31.6	14
ACCO LC 1151	2X	27.7	0.0	0.0	0.0	31.1	15
SDAES EX104	2X	27.7	0.0	0.7	0.0	33.0	17
AGSCO 4XC	4X	27.1	0.0	0.0	0.0	30.4	16
CHECK =5	4X	26.3	0.0	0.0	0.0	33.8	20
FUNKS G-4195	3X	25.8	0.0	1.9	0.0	29.5	19
FUNKS G-418C	3X	25.5	0.0	0.0	0.0	28.9	18
KALTENBERG KX42	2X	25.5	0.0	0.0	0.0	31.2	21
PRIDE 3315	2X	24.4	0.0	0.0	0.0	30.4	22
ACCO CC 147	4X	24.3	0.0	1.4	0.0	30.1	23
PRIDE 22C6	2X	24.1	0.0	0.0	0.0	31.2	24
SDAES EX103	2X	23.0	0.0	0.0	0.0	33.0	26
PRIDE 44C4	2X	22.1	0.0	0.0	0.0	29.3	25
FUNKS G-4321A	2X	21.3	0.0	0.0	0.0	35.6	27
CENEX 2116	2X	20.0	0.0	0.0	0.0	35.8	31
PAYCO SX775	2X	19.7	0.0	2.1	0.0	33.4	30
SOKOTA TS-67	2X	19.3	0.0	0.0	0.0	36.6	32
SDAES EX106	2X	19.0	0.0	0.6	0.0	30.2	29
CHECK =8	2X	18.6	0.0	1.7	0.0	27.7	28
SOKOTA SS-67	2X	18.6	0.0	0.0	0.0	35.6	33
FONTANELLE 365	3X	18.5	0.0	0.0	0.0	36.6	35
FUNKS G-428B	3X	18.3	0.0	3.1	0.0	33.8	34
PAYCO SX865	2X	17.3	0.0	0.0	0.0	35.7	37
KALTENBERG KX442	3X	17.0	0.0	0.0	0.0	30.7	36
TROJAN TXS 102	2X	16.5	0.0	0.0	0.0	35.7	38
CURTIS 443	2X	16.1	0.0	2.3	0.0	37.3	39
FONTANELLE 4CC	2X	14.9	0.0	0.0	0.0	35.1	40
CURTIS A-2C1	2X	14.9	0.0	2.4	0.0	35.4	41
FUNKS G-4444A	2X	12.9	0.0	0.0	0.0	34.9	42
WESTERN KX-55	2X	12.7	0.0	0.0	0.0	40.5	44
PRIDE R-2C0A	2X	12.6	0.0	0.0	0.0	34.2	43
PAYCO 3X811	3X	10.6	0.0	0.0	0.0	35.2	45
KALTENBERG KX68	2X	10.4	0.0	0.0	0.0	38.0	46
Mean		23.4		0.5		32.1	
LSD-(.05)		7.8				CV - 26.6%	

Table 7. 1976 Corn Performance Trial, Area C1(irrigated), James Valley Research Farm, Redfield

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
SDAES EX105	2X	99.5	C.C	0.8	C.C	20.4	1
CHECK =2	2X	96.6	C.0	0.4	0.C	23.8	2
FONTANELLE 4C0	2X	94.2	0.0	C.C	C.C	24.2	4
PICNEER 378C	2X	93.4	C.0	C.C	0.C	20.9	3
FLNKS G-4444A	2X	92.2	C.C	C.8	C.C	24.9	5
O'S GCLD 11CC	2X	91.3	C.C	C.4	0.C	24.8	9
TROJAN TXS 1C2	2X	91.2	0.0	0.0	0.0	24.C	7
SCKCTA TS-67	2X	91.1	0.0	1.2	0.C	24.2	8
PRICE 44C4	2X	89.C	C.C	C.C	C.C	2C.4	6
CHECK =3	2X	86.4	C.C	C.C	C.C	19.5	1C
FLNKS G-4288	3X	84.3	0.C	0.9	0.C	22.0	12
TRCJAN TXS 94	2X	84.1	C.0	C.C	0.C	2C.3	11
P-A-G 534	3X	83.8	C.C	C.8	0.C	23.5	15
CARGILL 863	2X	83.8	C.C	C.C	C.C	23.4	13
O'S GCLD 11C7	2X	82.9	0.C	0.C	C.C	23.9	17
SCKCTA SS-51	M2X	81.5	C.0	C.C	C.C	2C.3	14
ACCC LC 2901	2X	81.2	0.C	C.9	0.C	2C.C	16
PICNEER 371C	2X	8C.0	0.0	C.C	C.C	22.7	18
ACCC LC 3301	2X	79.7	0.0	C.4	C.C	27.5	23
SDAES PP204A	M2X	79.6	C.C	1.7	0.C	23.6	19
FLNKS G-4321A	2X	77.4	C.C	C.C	C.C	24.4	24
SDAES PP204	2X	76.6	C.C	0.C	C.C	29.2	31
MC CLRDY MSP 111	3X	75.9	0.0	C.0	0.0	21.5	21
PAYCC SX775	2X	75.8	C.0	C.4	C.C	22.5	26
PRICE R-2CCA	2X	75.1	C.C	C.C	0.C	21.3	25
PAYCC SX68C	2X	74.7	0.C	C.C	0.C	21.1	27
P-A-G SX 177	2X	74.6	C.C	C.4	C.C	18.3	20
FLNKS G-4180	3X	74.4	0.C	C.C	0.C	19.2	22
MC CLRDY MSP 333	3X	73.8	C.C	C.C	0.C	23.8	3C
WESTERN KX-55	2X	73.8	C.C	0.4	0.C	26.0	34
SCKCTA SS-67	M2X	72.9	0.C	C.0	0.C	25.C	35
MC CLRDY MSX 24	2X	72.5	C.C	C.C	0.C	19.1	29
MC CLRDY MSX 44A	2X	72.3	C.C	C.C	0.C	25.0	36
ACCC LC 1151	2X	72.1	C.C	C.C	C.C	18.C	28
SCKCTA TS-46	2X	7C.4	0.0	0.9	C.C	2C.1	33
ASGROW RX2222	2X	7C.0	C.C	C.C	0.C	19.5	32
SCKCTA SS-59A	M2X	69.1	C.C	C.C	0.C	24.4	42
CARGILL 848	2X	68.8	0.C	C.4	C.C	21.9	38
SCKCTA TS-49	2X	68.5	0.0	0.0	0.C	2C.9	37
CENEX 2116	M2X	68.3	0.0	0.4	0.C	22.C	39
FONTANELLE 365	3X	67.2	0.C	C.C	0.C	30.9	5C
AGSCC 4XC	4X	67.2	0.C	1.2	0.C	20.4	4C
CHECK =5	4X	65.7	0.0	0.C	0.C	2C.8	44
MC CLRDY MSX 46	2X	65.5	0.C	C.C	0.C	23.0	46
PRICE 3315	2X	65.0	C.C	C.C	0.C	17.6	41
CENEX 2125	2X	64.6	C.C	C.C	0.C	21.8	47
KALTENBERG KX42	2X	64.3	0.0	C.9	0.C	21.2	48
PRICE 22C6	2X	63.3	C.C	C.C	C.C	19.0	45
FLNKS G-4141	2X	63.C	C.C	C.4	0.C	16.3	43
CARGILL 83C	2X	58.9	C.C	C.C	C.C	17.4	49
KALTENBERG KX65	2X	58.2	0.0	0.C	0.C	25.9	51
PAYCC SX865	2X	57.8	C.C	C.C	0.C	26.0	52
P-A-G 22C	2X	51.3	C.C	C.C	0.C	26.5	54
FLNKS G-4195	3X	5C.2	0.C	C.4	C.C	19.2	53
SDAES EX106	M2X	47.2	0.0	1.2	0.C	21.3	55
KALTENBERG KX6E	2X	41.7	C.0	C.C	0.C	25.9	56
Mean		74.2		0.3		22.3	
LSD-(.05)		17.3				CV - 20.5%	

Table 8. Area C1(dryland), 2-, 3-, and 4-year yield, moisture and stalk lodging averages of corn hybrids, 1973-1976

BRAND AND VARIETY	ACRE YIELD, B/A			STK LODGING, PCT			GRAIN MOIST, PCT		
	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR
ACCO LC 1151	56	47	52	1	0	0	22	23	24
ACCO LC 2301		46	47		0	0		23	25
CHECK =4			49			0			25
CHECK =5			42			0			27
CHECK =8			35			1			22
CURTIS A201	55	42	41	1	1	1	28	29	30
FUNKS G-4141			44			0			23
FUNKS G-4288		43	40		2	2		26	27
PAYCO SX 775	53	35	45	1	1	1	24	24	27
PAYCO SX 865			45			0			30
PRIDE R-2CCA			35			0			26
PRIDE 3315			42			0			25
PRIDE 44C4		37	36		0	0		23	25
SDAES EX 103			40			0			26
SDAES EX104			45			0			27
SDAES PP 147	54	47	51	1	1	1	20	20	23
SDAES PP 199		45	49		1	1		22	24
SOKOTA SS-51			51			0			25
SOKOTA SS-67		45	47		0	0		28	29
SOKOTA TS/67			45			0			30
TROJAN TXS 102			45			0			30
TROJAN TXS 94	52	41	50	1	1	1	22	23	26
TROJAN TXS 99			46			0			23
WESTERN KX-55			45			0			32

Table 9. Area C1(irrigated) 2-, 3-, and 4-year yield, moisture and stalk lodging averages of corn hybrids, 1973-1976

BRAND AND VARIETY	ACRE YIELD, B/A			STK LODGING, PCT			GRAIN MOIST, PCT		
	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR
ACCO LC 1151	103	94	97	0	0	0	19	18	19
ACCO LC 2901	105	97	101	1	1	1	21	20	20
CHECK =2			116			0			24
CHECK =3			102			1			19
CHECK =5			81			0			21
FUNKS G-4141			90			0			17
FUNKS G-418C			93			0			20
FUNKS G-4288		99	103		1	1		21	22
MC CURDY MSP 333	104	89	94	0	0	0	23	22	22
MC CURDY MSX 24		93	91		1	1		18	19
MC CURDY MSX 46			94			0			23
MC CURDY MSX44A		105	107		0	0		24	25
O'S GOLD SX11CC		103	106		0	0		24	25
PAYCO SX 68C		95	97		0	0		21	21
PAYCO SX 775	102	92	97	0	0	0	21	20	21
PIONEER 378C	110	101	105	0	0	0	21	20	21
PRIDE R-2CCA	99	90	90	1	0	0	21	20	20
PRIDE 3315			91			0			18
PRIDE 44C4		98	103		0	0		20	21
SDAES EX 105			114			1			19
SOKOTA SS-51		103	103		0	0		19	20
SOKOTA SS-67		95	92		0	0		25	24
SOKOTA TS-46			88			1			20
SOKOTA TS-49	98	89	89	0	0	0	21	21	21
SOKOTA TS-67			108			1			24
TROJAN TXS 102			115			0			24
TROJAN TXS 94	108	101	104	0	0	0	21	20	21
WESTERN KX-55			104			0			25

Table 10. 1976 Corn Performance Trial, Area D3, Plant Science Farm, Brookings

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
PIONEER 3710	2X	70.5	0.0	6.4	0.0	19.6	3
CHECK =3	2X	69.9	0.0	5.3	0.0	16.9	2
ASGROW RX2222	2X	69.6	0.0	2.1	0.0	16.9	1
SECURITY SS97	2X	67.5	0.0	2.1	0.0	17.0	4
ASGROW RX2345	2X	67.1	0.0	10.5	0.0	19.0	7
TROJAN TXS 95	2X	66.1	0.0	2.2	0.0	16.5	5
CHECK =4	2X	66.0	0.0	3.7	0.0	17.2	6
ACCO LC 3301	2X	64.8	0.0	14.3	0.0	23.2	17
PAYCO SX680	2X	64.6	0.0	1.6	0.0	17.4	8
SCHOTA TS-49	2X	63.4	0.0	0.5	0.0	17.4	9
DISCO SX-98	2X	63.3	0.0	4.8	0.0	17.0	10
FUNKS G-4321A	2X	63.0	0.0	3.7	0.0	21.3	15
O'S GOLD 1100	2X	62.9	0.0	5.9	0.0	21.0	16
NC+ 35	2X	62.8	0.0	1.6	0.0	19.7	13
FUNKS G-4180	3X	61.9	0.0	1.6	0.0	16.0	11
TROJAN TXS 102	2X	61.8	0.0	2.7	0.0	21.7	18
PAYCO SX865	2X	61.4	0.0	10.7	0.0	22.2	27
SCHOTA TS-7533	2X	61.1	0.0	3.2	0.0	15.6	12
PAYCO SX775	2X	61.0	0.0	3.2	0.0	20.8	20
O'S GOLD 949	2X	60.9	0.0	2.1	0.0	17.1	14
FUNKS G-4444A	2X	60.6	0.0	3.3	0.0	21.8	24
SDAES PP204A	M2X	60.1	0.0	1.1	0.0	21.3	22
NC+ 12	3X	60.0	0.0	3.2	0.0	17.9	19
MC CURDY MSP 111	3X	59.5	0.0	6.9	0.0	18.1	23
MC CURDY MSX 44A	2X	59.1	0.0	5.8	0.0	21.2	32
P-A-G SX 21C	2X	59.0	0.0	7.0	0.0	20.0	30
WESTERN KX-45	2X	58.7	0.0	3.2	0.0	16.4	21
MC CURDY MSX 24	2X	58.5	0.0	9.1	0.0	15.7	25
KALTENBURG KX 57	2X	58.3	0.0	4.8	0.0	18.2	28
FUNKS G-4288	3X	58.2	0.0	13.0	0.0	20.8	35
CENEX 2116	M2X	58.1	0.0	1.6	0.0	20.0	29
FUNKS G-4465	3X	58.0	0.0	12.3	0.0	23.4	45
SDAES EX94A	4X	57.7	0.0	9.1	0.0	23.4	43
QUALITY 3W 105	3X	57.4	0.0	4.8	0.0	18.1	31
SDAES PP204	2X	57.4	0.0	4.9	0.0	24.1	42
CARGILL 863	2X	57.0	0.0	7.1	0.0	19.5	33
ASGROW RX58	2X	56.8	0.0	7.0	0.0	21.0	39
CENEX 3015	3X	56.5	0.0	2.1	0.0	14.6	26
MC CURDY MSX 42	2X	56.5	0.0	3.2	0.0	21.2	37
NC+ 33	2X	56.4	0.0	6.4	0.0	20.1	38
PIONEER 3780	2X	56.1	0.0	2.1	0.0	19.6	34
ASGROW RX53	2X	55.7	0.0	2.7	0.0	19.7	36
SECURITY SS105	2X	55.1	0.0	3.7	0.0	19.8	41
MC CURDY MSX 46	2X	54.9	0.0	2.2	0.0	20.5	44
P-A-G SX69	2X	54.8	0.0	2.7	0.0	21.4	46
QUALITY SX 11C	2X	54.8	0.0	13.4	0.0	22.3	56
SCHOTA SS-51	M2X	54.5	0.0	5.3	0.0	17.2	40
PAYCO 3X811	3X	54.4	0.0	3.2	0.0	21.2	51
CARGILL 845	2X	54.4	0.0	4.2	0.0	20.4	50
CARGILL 434	3X	54.2	0.0	7.0	0.0	20.7	52
WESTERN KX-55	2X	54.1	0.0	10.1	0.0	21.7	55
P-A-G 22C	2X	53.9	0.0	13.8	0.0	22.4	59
KALTENBURG KX 42	2X	53.3	0.0	5.6	0.0	17.6	49
MC CURDY 38M	2X	52.9	0.0	3.2	0.0	20.1	54
FUNKS G-4141	2X	52.6	0.0	2.7	0.0	16.9	48
KALTENBURG KX 65	2X	52.3	0.0	5.9	0.0	20.6	57
NC+ 21	2X	51.8	0.0	4.3	0.0	20.8	58
TROJAN TXS 94	2X	51.5	0.0	2.1	0.0	17.1	53
CHECK =7	2X	51.0	0.0	1.1	0.0	14.3	47
O'S GOLD 1107	2X	50.9	0.0	1.1	0.0	23.1	63
P-A-G 534	3X	50.4	0.0	18.1	0.0	20.7	68

Table 10. Continued

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
CARGILL 848	2X	49.9	C.C	1.6	0.C	2C.6	62
SDAES EX94	4X	49.8	C.0	9.7	0.C	22.1	67
FUNKS G-4195	3X	49.5	C.C	12.2	C.C	16.4	64
SECURITY SS1C2	2X	49.5	C.C	6.5	C.C	19.8	65
CHECK =5	4X	49.3	C.0	2.7	0.C	17.8	61
MC CURDY MSP 333	3X	49.2	C.C	3.2	C.C	2C.8	66
PRICE 3315	2X	48.7	C.C	C.C	C.C	17.2	6C
KALTENBURG KX 68	2X	46.C	0.C	C.6	C.C	23.2	69
PRICE 5525	2X	44.1	0.C	2.1	C.C	21.1	71
SDAES EX106	M2X	43.5	C.C	12.2	C.C	16.C	7C
KALTENBURG KX 72C	3X	42.9	C.C	2.7	C.C	26.5	72
Mean		56.9		5.2		19.6	
LSD-(.05)		12.2				CV - 18.8%	

Table 11. Area D3 2-, 3-, and 4-year yield, moisture and stalk lodging averages of corn hybrids, 1973-1976

BRAND AND VARIETY	ACRE YIELD, B/A			STK LODGING, PCT			GRAIN MOIST, PCT		
	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR
ACCO LC 33C1	76	69	81	7	5	8	23	24	27
ASGROW RX 53		65	71		1	1		2C	23
ASGROW RX 58		67	76		3	4		23	25
CARGILL 434		59	68		4	4		23	26
CARGILL 845			66			2			23
CARGILL 863	73	66	75	4	3	4	21	21	24
CHECK =3			69			4			19
CHECK =4			74			2			2C
CHECK =5			57			2			21
CHECK =7			54			1			16
FUNKS G-4141			63			2			19
FUNKS G-418C	68	59	65	2	1	1	17	17	19
FUNKS G-428C	73	64	75	7	5	7	21	21	24
MC CURDY MSP 333			65			2			25
MC CURDY MSX 24		64	69		4	6		17	18
MC CURDY MSX 42			71			2			25
MC CURDY MSX 44A		67	77		2	3		23	25
MC CURDY MSX 46		59	66		1	1		23	25
O'S GOLD SX 11CC	78	7C	76	3	3	4	21	22	25
P-A-G SX 21C			71			4			25
PAYCO SX 68C		66	72		1	1		18	2C
PAYCO SX 775	72	65	72	2	1	2	21	22	25
PAYCO SX 865	75	66	74	5	4	6	23	23	26
PIONEER 378C	70	61	69	4	1	1	2C	21	24
PRICE 3315			61			C			21
SDAES EX 94	7C	57	67	4	3	5	23	24	27
SDAES EX94A			62			5			28
SDAES PP204			70			3			27
SDAES PP204A			74			1			25
SECURITY SS 1C2			C			C			C
SOKOTA SS-51		68	76		3	4		19	21
SOKOTA TS-49	74	62	68	0	0	C	18	19	21
TROJAN TXS 1C2			80			2			26
TROJAN TXS 94	63	52	52	1	1	1	16	16	16
TROJAN TXS 99			72			1			19
WESTERN KX-55			72			6			25

Table 12. 1976 Corn Performance Trial, Area D4, Clifford Hofer Farm, Bridgewater

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
SECURITY SS108	2X	68.8	C.C	C.4	C.C	16.9	2
CHECK =3	2X	68.7	C.C	1.7	C.C	14.8	1
WILSON 2380	M2X	66.1	C.C	C.4	C.C	16.1	3
CARGILL 863	2X	61.8	C.C	1.6	C.C	16.3	4
WILSON 1C16	2X	58.5	C.C	C.4	C.C	16.5	6
SOKOTA SS-67	2X	58.3	C.C	C.8	C.C	15.8	5
FUNKS G-4321A	2X	54.7	C.C	C.8	C.C	16.C	7
TROJAN TXS 111	2X	54.2	C.C	C.C	C.C	2C.7	12
WILSON 15C0	M2X	53.8	C.C	1.3	C.C	16.8	9
PIONEER 3709	M2X	53.1	C.C	C.8	C.C	14.9	8
O'S GOLD 11CC	2X	52.8	C.C	1.2	C.C	14.7	10
TROJAN TXS 1C8A	2X	52.6	C.C	2.6	C.C	19.7	17
SECURITY SS1C5	2X	52.6	C.C	C.4	C.C	15.4	11
SOKOTA TS-77	2X	52.5	C.C	1.C	C.C	21.1	18
WILSON 14C0	2X	52.3	C.C	C.5	C.C	19.1	15
NC+ 33	2X	52.3	C.C	C.4	C.C	16.4	13
TROJAN TXS 1C2	2X	52.C	C.C	1.7	C.C	15.9	14
NC+ 57	2X	51.8	C.C	C.8	C.C	22.9	21
P-A-G 22C	2X	51.6	C.C	C.C	C.C	17.8	16
DISCO SX-27	2X	51.0	C.C	C.8	C.C	25.7	24
ASGROW RX2345	2X	5C.C	C.C	1.4	C.C	16.2	19
PRIDE 44C4	2X	49.2	C.C	C.C	C.C	16.4	2C
ACCO L 370	3X	49.2	C.C	4.2	C.C	19.7	23
MC CURDY MSX 46	2X	48.6	C.C	C.C	C.C	16.4	22
PAYCO SX865	2X	47.5	C.C	1.9	C.C	16.2	25
CARGILL 434	3X	47.3	C.C	C.9	C.C	17.3	27
ASGROW RX58	2X	47.0	C.C	1.3	C.C	15.5	26
MC CURDY MSX 42	2X	46.9	C.C	C.4	C.C	16.7	28
FUNKS G-4366	3X	45.6	C.C	1.4	C.C	17.2	30
CHECK =5	4X	45.1	C.C	1.8	C.C	14.3	29
MC CURDY MSX 44A	2X	43.9	C.C	C.8	C.C	16.1	31
FUNKS G-4445	2X	43.4	C.C	C.C	C.C	17.C	32
MC CURDY MSP 333	3X	42.6	C.C	1.7	C.C	16.6	33
CHECK =2	2X	41.9	C.C	C.8	C.C	15.9	34
NC+ 35	2X	41.2	C.C	C.C	C.C	16.9	35
FUNKS G-4288	3X	41.1	C.C	3.1	C.C	15.9	36
FUNKS G-4485	3X	4C.1	C.C	2.6	C.C	19.1	38
DISCO SX-30	2X	39.9	C.C	C.9	C.C	25.6	49
TROJAN TXS 1C5A	2X	39.5	C.C	4.C	C.C	16.5	37
KALTENBERG KX68	2X	39.4	C.C	C.5	C.C	19.6	41
PRIDE 5525	2X	39.C	C.C	1.2	C.C	18.2	4C
ACCO L 356	3X	39.C	C.C	2.5	C.C	18.3	42
MC CURDY 72-17	3X	38.9	C.C	C.C	C.C	19.5	43
SOKOTA SK-79	3X	38.7	C.C	C.C	C.C	21.4	44
SOKOTA TS-82	2X	38.4	C.C	C.8	C.C	25.3	55
P-A-G SX 210	2X	37.9	C.C	C.4	C.C	15.5	39
FUNKS G-4449	2X	37.5	C.C	C.C	C.C	2C.8	52
PAYCO 3X811	3X	37.2	C.C	C.C	C.C	17.8	45
ACCO LC 3301	2X	37.C	C.C	C.C	C.C	17.6	46
KALTENBERG KX65	2X	36.5	C.C	C.4	C.C	16.4	47
SDAES EX106	M2X	36.3	C.C	5.2	C.C	14.4	48
NC+ 21	3X	36.2	C.C	1.7	C.C	15.9	5C
MC CURDY 73-91	3X	35.8	C.C	C.8	C.C	15.8	51
O'S GOLD 55CCA	2X	35.5	C.C	C.4	C.C	25.6	59
PRIDE 5565	2X	34.9	C.C	C.8	C.C	15.4	54
KALTENBERG KX57	2X	34.8	C.C	1.4	C.C	14.9	53
CURTIS 443	2X	34.2	C.C	3.C	C.C	17.6	56
P-A-G 534	3X	34.2	C.C	6.8	C.C	17.C	57
ASGROW RX61	2X	33.C	C.C	C.5	C.C	18.5	58
WESTERN KX-64	2X	29.9	C.C	2.3	C.C	22.8	63
CARGILL 848	2X	29.3	C.C	1.6	C.C	15.C	60

Table 12. Continued

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
MC CLRDY 38M	2X	27.9	C.C	1.1	0.C	16.2	61
FUNKS G-4444A	2X	27.6	0.0	1.3	0.0	16.3	62
Mean		44.6		1.3		17.7	
LSD-(.05)		19.5				CV - 38.6%	

Table 13. Area D4 2-, 3-, and 4-year yield, moisture and stalk lodging averages of corn hybrids, 1973-1976

BRAND AND VARIETY	ACRE YIELD, B/A			STK LODGING, PCT			GRAIN MOIST, PCT		
	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR
ACCO L 370		35	45		2	3		21	20
ACCO LC 3301	44	32	39	8	1	2	22	22	20
ASGROW RX 58		32	38		1	1		21	19
CARGILL 434			42			2			19
CARGILL 863			52			3			18
CHECK =2			34			1			18
CHECK =3			52			2			16
CHECK =5			38			4			16
DISCO SX-30			49			1			24
FUNKS G-4288			36			3			18
FUNKS G-4366	46	36	43	5	1	2	21	21	19
FUNKS G-4445		43	49		2	C		22	20
MC CLRDY MSP 333			36			1			18
MC CLRDY MSX 44A		29	35		3	5		21	18
MC CLRDY MSX 46		34	42		0	C		20	18
MC CLRDY 72-17		33	41		C	C		23	21
O'S GOLD SX 11CC	45	34	45	5	2	2	21	21	18
O'S GOLD 55CCA		26	34		1	1		23	22
P-A-G SX 21C			34			1			17
PAYCO SX 865	43	31	40	8	4	5	22	22	19
PRIDE 5525			38			2			18
PRIDE 5565			28			1			18
SECURITY SS 105			47			C			19
SECURITY SS 108			57			C			18
SOKOTA SS-67		36	47		1	2		21	18
SOKOTA TS-77			46			1			20
TROJAN TXS 102	45	33	44	7	4	7	22	21	18
TROJAN TXS 105A			44			3			18
TROJAN TXS 108A	51	36	46	4	2	2	22	21	19
WESTERN KX-64			36			2			23
WILSON 1016	44	35	43	5	1	1	22	21	19
WILSON 150C		37	44		1	1		22	19

Table 14. Listing of hybrid corn entries harvested and the tables where the results appear.

Company & Brand	Variety	Tables
ACCO Seed	DC 147	6
PO Box 9	U 356	12
Belmond, IA 50421	U 370	12,13
"ACCO"	UC 1151	6,7,8,9
	UC 1901	6
	UC 2301	6,8
	UC 2901	7,9
	UC 3301	7,10,11,12,13
Agsco, Inc.	3 x B	6
Box 458	4 x C	6,7
Grand Forks, ND		
Asgrow Seed Co.	RX 53	10,11
PO Box 2010	RX 58	10,11,12,13
DesMoines, IA	RX 61	12
"Asgrow"	RX 2222	7,10
	RX 2345	10,11
Cargill Inc.	434	10,11,12,13
1433 Cargill Bldg.	830	7
Mpls., MN 55402	845	10,11
"Cargill"	848	7,10,12
	863	7,10,11,12,13
Cenex Seed	2116	6,7,10
Box "G"	2125	7
St. Paul, MN 55165	3015	6,10
Clay Co. Seed Co.	A-201	6,8
Spencer, IA 51301	443	6,12
"Curtis"		
Disco Seeds	SX-9B	10
PO Box 640	SX-27	12
Mitchell, SD 57301	SX-30	12,13
"Disco"		
Fontanelle Hybrids	365	6,7
Nickerson, NE 68044	400	6,7
"Fontanelle"		
Pioneer Seed Co.	3709	12
1206 Mulberry St.	3710	6,7,10,12
DesMoines, IA 50308	3780	7,9,10,11
"Pioneer"	3965	6
Wilson Hybrids	1016	12,13
PO Box 391	1400	12
Harlan, IA 51537	1500	12,13
"Wilson"	2380	12
Kaltenberg Seed	KX 42	6,7,10
Farms, Rt. 2	KX 57	10,12
Waunakee, WI	KX 65	7,10,12
"Kaltenberg"	KX 68	6,7,10,12
	KX 442	6,10
King's Western Seeds	KX 45	10
205 Wyoming SW	KX 55	6,7,8,9,10,11
Huron, SD 57350	KX 64	12,13
"Western"		
McCurdy Seed Co.	MSP 111	7,10
Fremont, IA 52561	MSP 333	7,9,10,11,12
"McCurdy"	MSX 24	7,9,10,11
	MSX 42	10,11,12
	MSX 44A	7,9,10,11,12,13
	MSX 46	7,8,10,11,12,13
	38M	10,12
	72-17	12
	73-91	12
Mid-States Dist.	3W 105	10
648 Snelling Ave.	SX 110	10
St. Paul, MN		
"Quality"		
NC+ Hybrids	12	10
3820 North 56th	21	10,12
Lincoln, NE 68504	33	10,12
"NC+"	35	10,12
	57	12
O's Gold Seed Co.	949	10
PO Box 460	1100	7,9,10,11,12,13
Parkersburg, IA	1107	7,10
"O's Gold"	5500A	12,13
P-A-G Seeds	SX 69	10
1200 Nor'star Ctr.	SX 177	7
Mpls., MN 55402	SX 210	10,11,12,13
"P-A-G"	220	7,10,12
	534	7,10,12
Security Seed Co.	SS 97	10
Box 630	SS 102	10,11
Williamsburg, IA	SS 105	10,12,13
"Security"	SS 108	12,13
Pride Co. Inc.	R-200A	6,7,8,9
Glen Haven, WI	2206	6,7
"Pride"	3315	6,7,8,9,10,11
	4404	6,7,8,9
	5525	10,12,13
	5565	12,13
Funk Seeds, Intl.	G-4141	6,7,8,9,10,11
1300 W. Washington	G-4180	6,7,9,10,11
Box 2911	G-4195	6,7,10
Bloomington, IL	G-4288	6,7,8,9,10,11,12,13
"Funks"	G-4321A	6,7,10,12
	G-4366	12,13
	G-4444A	6,7,10,12
	G-4445	12,13
	G-4449	12
	G-4465	10,12
Trojan Seed Co.	TXS 94	6,7,8,9,10,11
PO Box 115	TXS 99	6,8,10,11
Watertown, SD	TXS 102	6,7,8,9,10,11,12,13
"Trojan"	TXS 105A	12,13
	TXS 108A	12,13
	TXS 111	12
Payco Seed Co.	SX 680	6,7,9,10,11
PO Box 70	SX 775	6,7,8,9,10,11
Dassel, MN 55325	SX 865	6,8,9,10,11,12,13
"Payco"	3X 811	6,10,12
Sokota Hybrids	TS-46	7
Box 250	TS-49	7,9,10,11
Brookings, SD 57006	SS-51	7,8,9,10,11,12
"Sokota"	SS-59A	7
	SS-67	6,7,8,9,12,13
	TS-67	6,7,8,9
	TS-77	12,13
	SK-79	12
	TS-82	12
	SS-7533	10
South Dakota	Check 2	7,9,12,13
Agricultural	Check 3	7,9,10,11,12,13
Experiment	Check 4	6,8,10,11
Station	Check 5	6,7,8,9,10,11,12,13
"SDAES"	Check 7	10,11
	Check 8	6,8
	EX 94	10,11
	EX 94A	10,11
	EX 103	6,8
	EX 104	6,8
	EX 105	7,9
	EX 106	6,8,10,12
	EX 147	6,8
	EX 199	6,8
	EX 204	7,10,11
	EX 204A	7,10,11