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1978 Corn Performance Trials

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1978 Corn Performance Trials

Circular 227
January 1979

Agricultural Experiment Station
South Dakota State University
Brookings

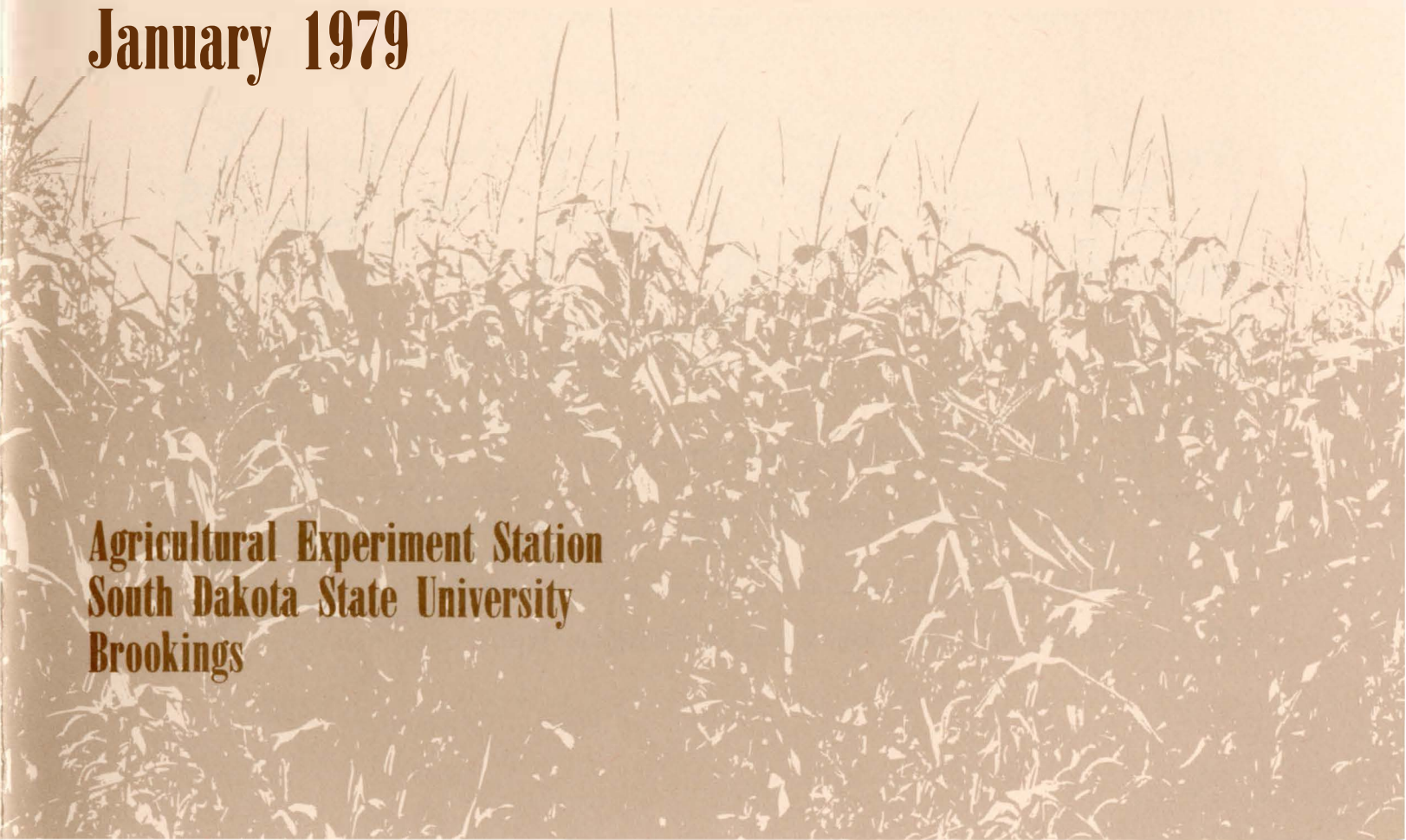
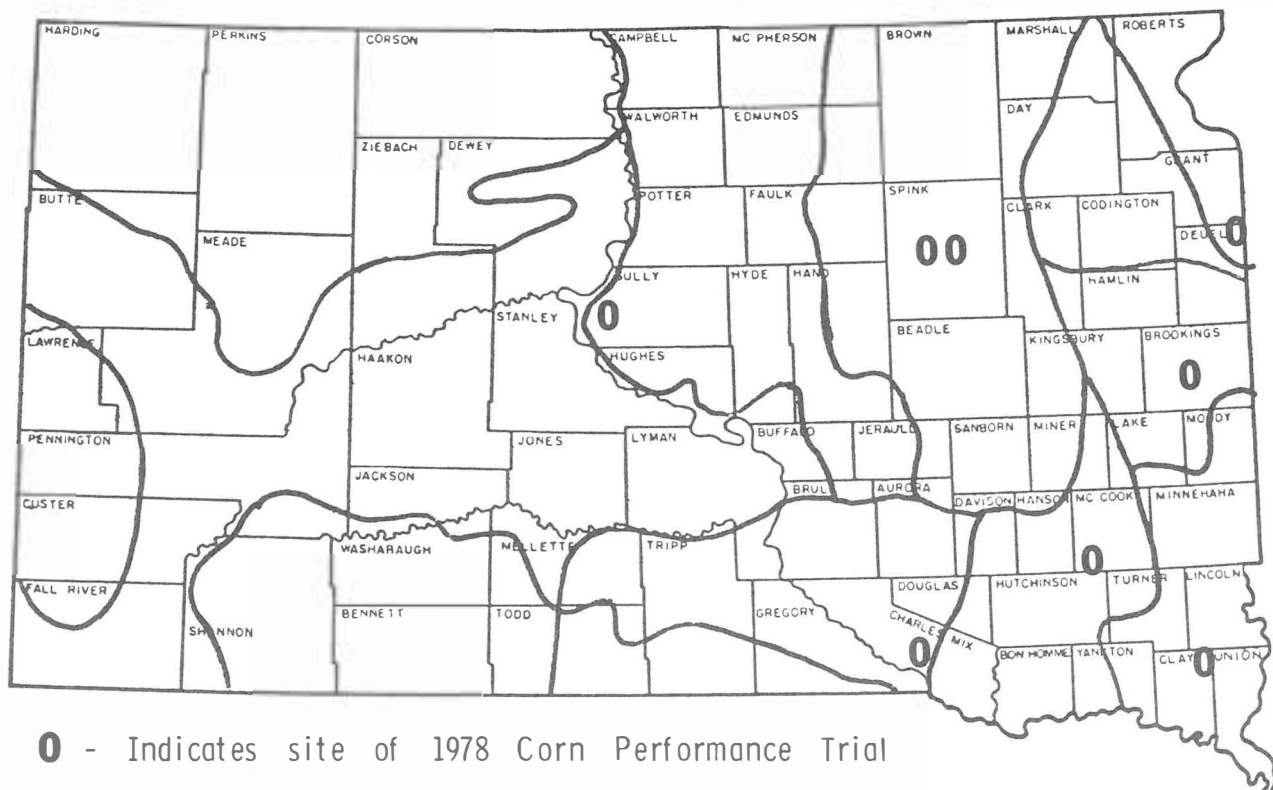


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CROP ADAPTATION AREAS



1978 Corn Performance Trials

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The relative performance of corn hybrids grown in 1978 under similar environmental conditions are evaluated in this report. Information in the accompanying tables includes grain yields in bushels per acre, moisture percentages of either ear corn or shelled corn at harvest, performance scores and other related information. Records of the corn hybrids harvested in 1978 and available two-, three-, and four-year 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 1978 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 trial in Area B2 was located with a new cooperator about 10 miles southwest of the former site. The trial at the Southeast Farm was destroyed by a hailstorm on July 5, too late to reestablish another trial. The soil classification, laboratory analyses of soil samples taken and fertility applied at each site are given in Table 2.

Weather and Climatic Conditions

1978 climatic data (Table 3) for the corn growing season, May-October, are based upon information obtained from a U.S. Weather Bureau station reasonably near each trial. The Onida and Milbank recording stations are closest to the Agar and Gary sites, respectively. Stations are located at all other trial sites. Precipitation quantities would vary from the actual site to the recording station but temperatures are comparative over a much wider area and considered applicable to the trial area.

Limited precipitation fell in early May. Some kernels possibly germinated and then died at some sites as populations were much below that intended at Gary and Bridgewater. Precipitation fell in adequate amounts later in May to aid germination of the later seedlings. Some crusting and washing occurred at Redfield and Geddes. The crusting seriously reduced stands at Redfield even though a rotary hoe was used to try and break up this crust. Precipitation patterns varied but were timely enough throughout the summer to produce good to excellent yields. Total precipitation was perhaps not as important as the below normal temperatures in July and August which allowed the plants to grow slowly but steadily and reduce the stresses often caused by extreme temperatures and limited amounts of available soil moisture.

The assistance of the following individuals is appreciated: D. B. Shank and G. W. Erion of the Plant Science Department; Joe Giles, Burt Lawrensen, Herb Lund, Kevin Kirby, Delbert Robbins and Lucian Edler of the stations; and cooperators William Fijala, John Heaton, Clifford Hofer and Harold Weischedel.

Table 1. Location of the 1978 Corn Performance Trials

Area	County	Location	Post Office	Dates	
				Seeded	Harvested
B2	Sully	H. Weischedel Farm, 9W,8S	Agar	May 23	Oct. 4
C1-dry	Spink	James Valley Res. Farm, 6E	Redfield	May 24	Oct. 25
C1-irr.	Spink	James Valley Res. Farm, 6E	Redfield	May 24	Oct. 26
C2	Charles Mix	Wm. Fijala Farm, 2E, 1N	Geddes	May 23	Oct. 20
D1	Deuel	John Heaton Farm, 1W, 7N	Gary	May 16	Oct. 6
D3	Brookings	Plant Science Farm, 2NE	Brookings	May 12	Oct. 24
D4	McCook	Clifford Hofer Farm	Bridgewater	May 17	Oct. 16
E	Clay	SE Experiment Farm, 7W, 3S	Beresford	May 15	---

The fall of 1978 was very mild with above normal temperatures and adequate precipitation. A killing frost was not recorded at most sites until the first weekend in October. Most corn was physiologically mature by harvest and stalks of some entries broke over before a killing frost occurred. The harvest of the trials was delayed because of excess moisture in the stalks and ears of many varieties. A freeze would have accelerated the drying down process.

The irrigated trial at Redfield received applications of water on July 19 and August 10. Both applications were by the gravity method and about 3 inches of water were applied each time.

The growing season was longer than normal as the last killing frost in the spring occurred in late April. Seeding began May 12 and escaped any late spring frosts. Since killing temperatures in the fall did not occur until early October, adapted varieties had ample time for full development.

Hybrid Entry Procedure

Hybrids entered are submitted by participating commercial companies and they designate the locations where their entries are to be grown. Hybrids registered with the South Dakota State Department of Agriculture prior to March 24, 1978, 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 are eligible and each was allowed to be entered once in each adaptation area. No more than seven entries from one company were accepted for each location. A listing of the firms, with brands and varieties harvested, is presented in Table 19.

Table 2. Laboratory analyses, soil classification and fertilizer applied to the 1978 corn performance trial fields.

Area	Soil Classification	% O.M.	P K		pH	Preparation or method	lb/A		
			lb/A	lb/A			N	P	K
B2	Agar SiL	2.2	22	890	6.9	Plowed & disced (oats)	0	0	0
C1-dry	Beotia SiCl	2.4	12	630	7.0	Disk(2) & harrow(wheat)	82	0	0
C1-irr.	Beotia SiCl	2.4	51	900	7.2	Disk(2) & harrow(sorghum)	115	0	0
C2	Highmore SiCl	3.2	200	999	6.7	Plowed & disced (wheat)	heavy manure		
D1	Forman SiCl	2.7	17	390	6.6	Plowed & disced (wheat)	12	48	24
D4	Clarno SiL	3.0	144	999	6.5	Plowed & disced(sm grain)	0	0	0
E	Egan SiL	3.1	90	999	6.6	Plowed & disced(sm grain)	80	40	20

Table 3. Temperature and Precipitation Data for the 1978 Corn Growing Season in South Dakota

District	Month	Temperature, degrees F				Precipitation, inches		
		Mean Av.	Departure from normal	Av. departure	Days 90 ^o +	Month total	Departure from normal	Total departure
Armour ^a C2	May	59.4	-0.3			4.84	1.96	
	June	70.0	+0.9		7	1.80	2.47	
	July	75.0	-0.5		15	6.20	3.51	
	August	73.5	-0.6		11	3.21	0.28	
	Sept.	67.9	+4.6		11	2.48	0.21	
	Oct.	50.9	-1.4	+0.4		0.44	-1.02	+7.41
	First freeze		10/7 - 28 ^o			18.97		
Bridgewater D4	May	60.6	b	b		4.79	b	b
	June	69.9			5	3.12		
	July	73.6			9	5.32		
	August	73.0			10	6.55		
	Sept.	69.1			10	2.79		
	Oct.	51.0				0.36		
	First freeze		10/7 - 28 ^o			22.93		
Brookings 2 NE D3	May	55.9	-0.3			4.17	0.97	
	June	64.4	+2.0		2	2.50	-1.73	
	July	69.3	-1.8		5	4.03	1.19	
	August	58.4	-1.2		3	2.25	-0.61	
	Sept.	63.2	+4.2		6	2.44	0.20	
	Oct.	45.2	+1.0	+0.6		0.35	-1.12	-1.10
	First freeze		10/7 - 27 ^o			15.74		
Milbank 2 SSW D1	May	57.2	-0.5			3.77	0.72	
	June	64.9	-2.4		1	2.75	-1.56	
	July	69.5	-3.3		7	4.06	1.24	
	August	59.1	-2.4		7	3.21	0.64	
	Sept.	63.9	+2.8		10	1.15	-0.18	
	Oct.	47.3	-3.5	-1.6		0.20	-1.35	-0.49
	First freeze		10/5 - 26 ^o			15.84		
Onida 4 NW B2	May	59.3	b	b		1.89	b	b
	June	68.8			4	4.47		
	July	73.5			11	3.39		
	Aug.	73.3			11	2.39		
	Sept.	68.3			12	0.36		
	Oct.	51.0				0.10		
	First freeze		10/7 - 26 ^o			12.60		
Redfield 6 E C1	May	58.3	b	b		5.42	b	b
	June	66.4			2	2.42		
	July	71.2			7	1.85		
	August	71.8			13	2.27		
	Sept.	67.0			12	0.64		
	Oct.	46.7				0.14		
	First freeze		10/7 - 24 ^o			12.74		

a - based upon reports of Monthly Climatological Data, National Weather Service, Ashville, NC.

b - Departures are figures from 30 years data. This station has not been in operation for that period of time.

In prior years check entries used were released hybrids of the South Dakota Agricultural Experiment Station. A change was made in 1975 to hybrids made up of released inbreds frequently used by the industry. Several of these were included in each trial as Check 2, 4, 6, etc. The identities are as follows:

Check 1 - B73 x Mo17Ht	Check 5 - (W64AHt x W117Ht)(W153R x A632Ht)
Check 2 - A632Ht x A619Ht	Check 6 - (A641 x A635)(W153R)
Check 3 - W153R x W117Ht	Check 7 - A641 x C0109
Check 4 - W64Ht x W117Ht	Check 8 - A632Ht x C0109

Seed of the hybrids was secured from Clyde Black & Sons, Inc., Ames, Iowa.

Several experimental 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 are listed below:

SDAES Ex 102 (W117 x SD 25)	SDAES Ex 214 (501-634 x A 632)
SDAES Ex 103 (SD 25 x A 632)	SDAES Ex 215 (504-123T x W117)(CM105)
SDAES Ex 105 (SD 22 x A 632)	SDAES Ex 216 (509-125P x W117)
SDAES Ex 107 (A 632 x 6A4E4A)	SDAES Ex 217 (W 64A x SD 15)(549-2)
	SDAES Ex 218 (504-123T x G-1057)(A554)

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 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 the hand-seeded 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 stands when necessary. Crusting and washing in 1978 eliminated some of the usual hand thinning.

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 at Agar and Redfield (irrigated) were slightly higher than desired in 1978 but the remaining trials were within acceptable statistical limits (5-15%).

A significant difference in yield was noted for the higher population at Redfield (irrigated). No significance was obtained for different populations at the other sites (Table 4).

Table 4. Field methods for the 1978 corn trial sites

Area	Table No.	Number of Replications Harvested	Method of Seeding	Population Obtained	Row		
					Number of	Width, inches	Length, feet
B2	18	5	hand	7,680	1	40	42
C1-dry	11	4	drilled	9,920	1	36	36
C1-irr.	14	3	drilled	13,760	1	36	32
C1-irr.	14	3	drilled	16,495	1	36	32
C2	16	4	drilled	10,690	1	40	36
D1	6	5	drilled	12,440	1	38	36
D3	8	2	drilled	12,000	1	36	32
D3	8	2	drilled	15,715	1	36	32
D4	10	3	drilled	12,400	1	38	36
D4	10	3	drilled	14,000	1	38	36
E	--	--	drilled	--	1	36	32
E	--	--	drilled	--	1	36	32

To convert data in these tables to the metric system of kilograms or quintals per hectare use the following methods:

I - 1 bu. #2 shelled corn = 54 lb.; 1 lb. = .454 kilograms; 1 hectare = 2.471 acres; so, $54 \times .454 \times 2.471 = 60.6 \times B/A =$ kilograms per hectare

II - or assuming a yield of 60.3 B/A from the tables

Step 1 = $60.3 \text{ B/A} \times 54 \text{ lb/B} = 3258 \text{ lb/acre}$

Step 2 = $3258 \text{ lb/acre} \times 1.121 = 3652 \text{ kilograms/hectare}$ or 36.5 quintals/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 the evaluation of the entries.

Ear droppage and stalk breakage were not a severe problem in 1978. Some very early maturity entries at all sites had stalk breakage and/or ear droppage at harvest. Some of this would not have occurred in a large acreage of an early variety in a farm situation as the operator would begin harvest earlier to avoid

Table 5. Harvest methods and moisture determinations for the 1978 corn trials

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

a larger loss. However, a high loss, even in an earlier variety would be detrimental if very large acreages were involved and could not be harvested in a short period of time.

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. The cash grain operator who does not turn livestock into his fields after harvest will receive greater returns when the stalks remain upright so that the ears will go through his harvesting machinery. 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 Great 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. 1978 Corn Performance Trial, Area D1, John Heaton Farm, Gary

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT			PERCENT MOISTURE	PERFORMANCE SCOPE RATING
			ROOT LODGED	STALK LODGED	EARS DROPPED		
SOKOTA TS-64	2X	100.1	0.0	1.1	0.0	31.6	1
PRIDE 4417	2X	94.4	0.0	1.3	0.0	26.2	4
ACCO UC 2951	2X	94.0	0.0	2.0	0.0	25.4	3
SDAES EX 105	2X	92.3	0.0	2.8	0.0	22.0	2
SOKOTA TS-62	2X	91.3	0.0	1.7	0.0	28.4	7
PAYCO SX 680	2X	89.2	0.0	1.7	0.0	22.6	5
SOKOTA SS-51	M2X	87.6	0.0	1.2	0.0	23.2	6
GENEX 2111	2X	86.4	0.0	1.2	0.0	23.3	9
PRIDE 3315	2X	86.0	0.0	2.2	0.0	23.4	10
WESTERN KX-33	M2X	85.9	0.0	5.3	0.0	20.5	8
SDAES CHECK 3	2X	85.5	0.0	6.3	0.0	21.8	11
SDAES EX 214	2X	85.5	0.0	3.5	0.0	23.0	12
GENEX 2125	2X	85.3	0.0	2.4	0.0	25.2	13
PRIDE 4488	2X	81.2	0.0	3.3	0.0	30.9	17
ACCO UC 1905	2X	80.5	0.0	3.7	0.0	26.3	15
PRIDE 2206	2X	77.3	0.0	3.7	0.0	20.4	14
PAYCO SX 775	2X	76.8	0.0	2.7	0.0	27.1	20
SDAES CHECK 4	2X	75.9	0.0	2.4	0.0	22.8	16
SDAES EX 103	2X	74.6	0.0	3.4	0.0	22.6	18
SDAES EX 102	2X	73.0	0.0	2.7	0.0	20.9	19
SDAES EX 217	3X	71.8	0.0	5.7	0.0	25.8	23
SDAES CHECK 5	4X	70.0	0.0	2.5	0.0	25.1	24
SDAES EX 218	3X	69.6	0.0	1.1	0.0	20.2	21
PAYCO SX 737	2X	68.7	0.0	1.3	0.0	24.7	25
SDAES CHECK 7	2X	66.1	0.0	8.2	0.0	17.1	22
Means		77.3		2.9		24.0	
LSD (.05)		16.1					
							C.V. - % = 9.7

Table 7. Area D1 2-, 3-, and 4-year yield, moisture and stalk lodging averages of corn Hybrids, 1975-1978

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
CHECK =3			94			4			21
CHECK =4			83			3			22
CHECK =7			70			5			18
PAYCO SX 680			92			1			23
PAYCO SX 775			89			2			24
PRIDE 2206			85			2			20
PRIDE 3315			89			1			23
PRIDE 4488			92			3			28
SDAES EX 102			81			1			20
SDAES EX 103			86			2			22
SDAES EX 105			97			2			22
SOKOTA SS-51			93			2			22
SOKOTA TS-64			104			2			30

Table 8. 1978 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
CENEX 2157	2X	155.5	0.0	9.8	0.0	20.0	1
ACCO UC 3301A	2X	151.4	4.0	9.7	0.0	19.7	3
CURRY SC-142-1	2X	148.4	0.0	2.4	0.0	18.7	2
NORTHRUP-KING PX 45	2X	144.5	0.0	5.6	0.0	17.6	4
PRIDE 5589	2X	144.1	0.0	5.6	0.0	18.9	5
SOKOTA TS-64	2X	139.3	0.0	8.7	0.0	19.0	8
P-A-G SX 397	2X	138.9	0.0	1.6	0.0	20.1	7
ACCO UC 3002	2X	137.3	0.0	4.9	0.0	19.2	10
MC CURDY MSX 37	2X	136.8	2.4	6.3	0.0	15.7	6
NORTHRUP-KING PX 49	2X	136.5	0.0	4.1	0.0	18.5	9
PRIDE 5578	2X	135.8	3.3	4.9	0.0	19.1	11
TROJAN TXS 102	2X	134.9	2.4	7.3	0.0	19.0	13
PRIDE 4488	2X	134.4	0.0	0.8	0.0	20.2	12
WESTERN KX-55	2X	134.0	0.8	4.9	0.0	19.5	15
P-A-G SX 177	M2X	133.2	0.0	12.0	0.0	15.9	14
MC CURDY MSX 44A	2X	132.9	4.8	7.9	0.0	18.6	16
MC CURDY MSX 42	2X	131.0	0.8	4.9	0.0	18.7	18
NORTHRUP-KING PX 37	2X	130.9	0.0	0.8	0.0	19.3	17
PAYCO SX 775	2X	128.5	0.8	5.6	0.0	18.6	19
SECURITY SS-106	2X	126.8	0.0	3.2	0.0	21.6	24
WESTERN KX-60	2X	126.3	1.6	2.4	0.0	22.2	25
ASGROW RX 40	2X	125.7	0.0	8.9	0.0	15.0	20
RBA 104	3X	125.5	4.0	4.0	0.0	18.8	22
PAYCO SX 737	2X	124.4	1.6	8.9	0.0	15.9	23
FUNKS G-4444	2X	123.8	4.9	6.6	0.0	19.3	27
NORTHRUP-KING PX 26	2X	123.3	0.0	5.8	0.0	14.8	21
SDAES EX 107	2X	122.7	6.7	5.0	0.0	18.6	26
FUNKS G-4323	M2X	122.3	0.8	2.4	0.0	20.0	28
P-A-G SX 210	M2X	122.1	0.0	8.5	0.0	17.8	29
SECURITY ST-105	3X	122.1	4.9	7.4	0.0	18.7	30
NORTHRUP-KING PX 46	2X	120.3	0.0	5.6	0.0	18.7	31
PAYCO SX 844	2X	119.3	0.8	3.2	0.0	20.5	36
SOKOTA TS-62	2X	118.6	2.4	2.4	0.0	18.5	32
P-A-G SX 189	M2X	118.5	0.0	6.5	0.0	18.7	37
CENEX 2203	2X	118.0	2.5	0.8	0.0	19.4	34
ASGROW RX 2345	2X	117.4	0.0	0.8	0.0	20.0	38
MC CURDY MSP 111	3X	117.4	12.7	7.1	0.0	16.7	35
CARGILL 430	3X	115.9	1.6	4.1	0.0	17.7	39
PRIDE R-328	3X	114.8	0.0	7.2	0.0	16.9	43
FUNKS G-4224	M2X	114.8	0.0	2.5	0.0	15.5	33
CARGILL 838	M2X	114.3	3.2	8.0	0.0	16.3	44
CARGILL 863	M2X	114.2	0.0	4.8	0.0	16.7	42
RBA 94+	2X	113.7	0.8	3.3	0.0	16.7	41
SOKOTA TS-44	2X	113.5	0.0	1.7	0.0	16.9	40
SOKOTA TS-49	2X	113.1	0.0	3.4	0.0	17.0	45
SECURITY SS-97	2X	113.0	3.3	5.0	0.0	17.2	46
CURRY SC-141	2X	111.8	1.6	2.4	0.0	18.0	50
TOP FARM SX 97	2X	111.4	2.4	4.8	0.0	16.4	49
TOP FARM SX 103	2X	111.2	0.0	1.7	0.0	17.2	48
RBA 92	3X	110.4	2.4	14.5	0.0	15.8	54
SDAES CHECK 3	2X	110.1	17.7	4.8	0.0	14.9	47
PAYCO SX 680	2X	109.6	2.4	3.2	0.0	16.7	51
CENEX 2111	2X	108.0	2.4	4.1	0.0	16.9	53
DISCO SX-98	2X	108.0	0.8	4.0	0.0	16.9	52
SOKOTA SS-51	M2X	106.3	0.0	6.5	0.0	16.8	57
SDAES CHECK 4	2X	106.1	1.6	4.0	0.0	17.5	56
MC CURDY 73-91	3X	106.0	0.0	4.0	0.0	19.1	60
SDAES CHECK 5	4X	105.8	0.0	5.6	0.0	17.2	58
DISCO SP-130	3X	105.3	5.6	5.6	0.0	16.0	55
SECURITY SS-108	2X	104.8	0.0	1.7	0.0	20.3	63
TOP FARM SX 106A	2X	104.6	4.0	7.1	0.0	17.4	61

Table 8. (continued)

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
P-A-G SX 67	2X	103.5	12.0	4.0	0.0	16.0	59
TOP FARM SX 100	2X	102.7	0.8	3.2	0.0	17.0	62
TOP FARM 3102	3X	101.7	6.4	8.8	0.0	15.7	64
FUNKS G-4195	3X	100.3	8.0	6.4	0.0	15.3	65
SECURITY SS-105	2X	97.5	2.5	3.3	0.0	20.5	67
ASGROW RX 2222	2X	94.0	5.6	4.8	0.0	15.0	66
SDAES CHECK 7	2X	86.2	5.7	7.4	0.0	14.1	69
CARGILL 810	M2X	85.5	0.8	1.6	0.0	14.3	68
Means		118.8		5.0		17.8	
LSD (.05)		16.1		C.V. - % = 9.7			

Table 9. Area D3 2-, 3-, and 4-year yield, moisture and stalk lodging averages of corn hybrids, 1975-1978

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
ASGROW RX 2222		86	94		3	3		17	18
ASGROW RX 2345		96	111		5	2		20	21
ASGROW RX 40			111			5			20
CARGILL 810			83			1			16
CARGILL 838			108			5			19
CARGILL 863	91	90	106	4	5	3	22	20	20
CHECK =3	82	87	96	4	5	5	18	17	17
CHECK =4	87	89	101	2	3	2	20	19	20
CHECK =7	67	70	80	3	3	4	16	15	15
CURRY SC-141			110			1			21
DISCO SX-98		89	101		3	2		18	19
FUNKS G-4195		79	94		8	6		17	18
MC CURDY MSP 111		94	111		6	5		19	19
MC CURDY MSX 37			119			6			19
MC CURDY MSX 42	93	95	114	3	4	4	24	22	22
MC CURDY MSX 44A	99	100	120	5	6	6	23	21	21
MC CURDY 73-91			102			3			22
NORTHRUP-KING PX 26			112			3			18
NORTHRUP-KING PX 46			108			4			21
P-A-G SX 177			109			8			19
P-A-G SX 189			108			3			21
P-A-G SX 210	89	91	108	5	6	6	23	20	21
PAYCO SX 680	81	82	91	2	2	2	21	21	22
PAYCO SX 775	93	96	114	3	4	4	23	21	21
PRIDE 4488			117			2			21
SDAES EX 107			113			3			21
SOKOTA SS-51	90	87	103	4	5	5	20	18	19
SOKOTA TS-49	86	90	104	1	2	2	20	19	19
SOKOTA TS-64			124			4			22
TOP FARM SX 100			102			2			20
TOP FARM SX 97			103			4			19
TROJAN TXS 102	99	99	117	4	5	6	24	22	22

Table 10. 1978 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
CENEX 2157	2X	168.8	0.0	18.5	0.0	18.9	1
CARGILL 924	M2X	154.2	0.0	3.9	0.0	21.5	2
ACCO UC 3301A	2X	152.4	0.0	11.6	0.0	18.8	3
P-A-G SX 397	2X	150.7	0.0	8.3	0.0	19.3	4
P-A-G 314	2X	148.0	0.0	7.6	0.0	22.2	7
PAYCO SX 990	2X	146.7	0.0	2.6	0.0	23.5	10
PRIDE 6678	2X	146.5	0.0	7.3	0.0	23.1	13
MC CUPDY MSX 44A	2X	146.3	0.0	15.7	0.0	17.9	8
NORTHROP-KING PX 74	2X	145.0	0.0	6.7	0.0	23.9	15
MC CURDY 77-49	2X	144.2	0.0	8.3	0.0	17.8	5
MC CURDY 77-48	2X	143.3	0.0	10.0	0.0	17.7	9
ACCO UC 7951	2X	143.3	0.0	2.9	0.0	26.6	21
DISCO SX-24	2X	142.5	0.0	3.5	0.0	18.2	6
NORTHROP-KING PX 69	2X	142.0	0.0	8.5	0.0	22.2	17
PAYCO SX 844	2X	141.4	0.0	3.8	0.0	19.4	11
WILSON 1016	2X	140.4	0.0	8.2	0.0	17.2	12
WILSON 1800	2X	139.4	0.0	3.3	0.0	23.6	22
WESTERN KX-64	2X	137.7	0.0	3.5	0.0	21.0	19
ASGROW RX 55	3X	137.2	0.0	8.5	0.0	18.2	18
PRIDE 4488	2X	136.7	0.0	1.1	0.0	17.9	14
MC CURDY MSX 46	2X	135.6	0.0	1.9	0.0	18.4	16
MC CURDY MSX 37	2X	135.0	0.0	9.6	0.0	16.5	20
WESTERN KX-60	2X	134.0	0.0	5.9	0.0	19.1	23
PRIDE 5578	2X	133.6	0.0	16.7	0.0	17.8	26
NORTHROP-KING PX 49	2X	133.0	0.0	10.1	0.0	17.7	24
DISCO SX-27	2X	132.5	0.0	3.2	0.0	23.0	28
GREEN ACRES 77-9A-12	4X	132.4	0.0	4.2	0.0	25.0	33
NORTHROP-KING PX 603	3X	130.9	0.0	8.7	0.0	20.3	29
LYNKS 4120	2X	130.8	0.0	11.1	0.0	18.1	27
CURRY TC-347	3X	130.5	0.0	4.7	0.0	22.2	31
LYNKS 4220A	2X	129.7	0.0	1.9	0.0	19.4	25
GREEN ACRES L17	4X	128.8	0.0	10.7	0.0	23.6	37
PRIDE 5589	2X	127.0	0.0	18.1	0.0	17.5	35
CFNEX 2203	2X	125.1	0.0	1.5	0.0	18.4	30
P-A-G SX 189	M2X	124.6	0.0	6.0	0.0	17.4	32
SOKOTA TS-74	2X	124.6	0.0	4.3	0.0	18.4	34
SOKOTA SK-79	3X	124.3	0.0	5.7	0.0	22.4	38
ASGROW RX 2345	2X	124.0	0.0	9.4	0.0	19.4	36
CURRY SC-147	2X	120.5	0.0	6.4	0.0	21.0	39
CARGILL 890	M2X	119.2	0.0	9.7	0.0	18.8	40
GREEN ACRES M4-10-12	4X	115.5	0.0	8.8	0.0	23.0	43
WILSON 1400A	2X	114.6	0.0	2.9	0.0	19.6	41
SDAES CHECK 3	2X	108.9	0.0	6.0	0.0	14.9	42
SDAES CHECK 2	2X	107.2	0.0	16.1	0.0	15.3	44
WILSON 1400	2X	99.1	0.0	1.1	0.0	19.1	45
SDAES CHECK 5	4X	93.5	0.0	12.6	0.0	17.2	46
Means		132.8		7.4		19.7	
LSD (.05)		13.3					C.V. - % = 8.8

Table 11. 1978 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
CURRY SC-1422	2X	103.2	0.0	5.1	0.0	15.9	1
SOKOTA SS-67	M2X	101.8	0.0	1.1	0.0	16.8	2
TROJAN TXS 102	2X	98.9	0.0	1.0	0.0	18.0	4
NORTHRUP-KING PX 49	2X	97.9	0.0	0.9	0.0	18.6	5
P-A-G SX 177	M2X	97.8	0.0	1.9	0.0	14.5	3
SOKOTA TS-64	2X	96.4	0.0	0.0	0.0	18.9	6
ACCO UC 3002	2X	95.3	0.0	1.0	0.0	18.0	7
TOP FARM SX 100	2X	90.7	0.0	1.9	0.0	15.8	8
NORTHRUP-KING PX 45	2X	90.4	0.0	0.9	0.0	18.3	9
PAYCO SX 844	2X	89.1	0.0	0.0	0.0	19.0	13
NORTHRUP-KING PX 37	2X	89.1	0.0	0.0	0.0	17.6	10
WESTERN KX-55	2X	88.9	0.0	1.1	0.0	19.2	15
WESTERN KX-60	2X	88.2	0.0	1.0	0.0	18.8	16
PRIDE 4417	2X	87.8	0.0	1.1	0.0	16.5	12
SDAES CHECK 4	2X	87.5	0.0	0.0	0.0	16.0	11
PRIDE R-328	3X	86.9	0.0	1.0	0.0	16.3	14
SDAES CHECK 5	4X	86.4	0.0	1.0	0.0	17.0	18
PAYCO SX 775	2X	85.6	0.0	2.1	0.0	16.4	22
TROJAN TXS 99	2X	85.2	0.0	2.2	0.0	14.7	17
SOKOTA TS-62	2X	84.8	0.0	1.0	0.0	17.1	24
CURRY SC-1451	2X	84.3	0.0	0.0	0.0	17.5	26
CENEX 2111	2X	84.2	0.0	1.0	0.0	14.4	20
PRIDE 4488	2X	84.2	0.0	0.0	0.0	17.3	25
CENEX 3015	3X	84.1	0.0	2.1	0.0	14.2	21
ASGROW RX 40	2X	83.6	0.0	0.0	0.0	13.7	19
TOP FARM SX 97	2X	83.5	0.0	1.9	0.0	14.3	23
SOKOTA TS-44	2X	81.6	0.0	0.0	0.0	14.6	27
WESTERN KX-35	2X	81.0	0.0	0.0	0.0	15.6	28
P-A-G SX 189	M2X	80.7	0.0	0.0	0.0	18.4	33
CARGILL 838	M2X	80.4	0.0	3.9	0.0	14.9	31
PAYCO SX 680	2X	80.1	0.0	0.0	0.0	15.3	30
TOP FARM SX 103	2X	80.1	0.0	0.0	0.0	14.4	29
SOKOTA SS-51	M2X	79.2	0.0	1.0	0.0	14.9	32
CARGILL 430	3X	78.2	0.0	1.0	0.0	17.3	38
TROJAN TX 99A	3X	78.2	0.0	1.1	0.0	14.7	34
ACCO UC 1901	2X	78.0	0.0	2.2	0.0	14.4	35
NORTHRUP-KING PX 34	2X	77.7	0.0	1.0	0.0	17.4	41
ASGROW RX 2222	2X	77.2	0.0	2.1	0.0	14.3	36
P-A-G SX 210	M2X	77.0	0.0	0.0	0.0	16.8	40
ACCO UC 2301	2X	76.9	0.0	5.7	0.0	15.2	43
SDAES CHECK 8	2X	76.4	0.0	2.2	0.0	13.4	37
PRIDE 2269	2X	76.1	0.0	3.9	0.0	13.7	39
PAYCO SX 737	2X	75.3	0.0	4.0	0.0	15.6	45
CARGILL 810	M2X	74.4	0.0	2.0	0.0	12.7	42
FUNKS G-4171	3X	73.7	0.0	1.1	0.0	13.5	44
ASGROW RX 37	3X	71.3	0.0	1.0	0.0	13.9	46
FUNKS G-4195	3X	70.5	0.0	2.1	0.0	13.9	47
FUNKS G-4085	3X	68.4	0.0	0.0	0.0	13.3	48
CENEX 2004	2X	66.7	0.0	3.1	0.0	12.8	49
Means		83.6		1.4		16.4	
LSD (.05)		11.5					
							C.V. - % = 9.9

Table 12. Area D4 2-, 3-, and 4-year yield, moisture and stalk lodging averages of corn hybrids, 1975-1978

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 UC 3301A			114			11			22
ASGROW RX 2345		85	103		5	6		19	21
CARGILL 890			100			8			22
CHECK =2	60	71	86	7	10	14	19	18	19
CHECK =3	69	80	86	4	4	5	17	17	18
CURRY SC-147			104			4			24
DISCO SX-27		87	105		2	2		26	26
MC CURDY MSX 37			104			6			19
MC CURDY MSX 46	76	89	109	1	2	3	20	20	21
NCRTHRUP-KING PX 74			116			5			26
P-A-G SX 397			121			6			23
P-A-G 314			108			6			25
PRIDE 4488			113			2			21
SOKOTA SK-79		82	104		4	5		25	25
SOKOTA TS-74			107			4			25
WILSON 1016	74	89	104	4	5	7	20	19	20
WILSON 1400		77	90		1	1		21	22

Table 13. Area C1(dryland) 2-, 3-, and 4-year yield, moisture and stalk lodging averages of corn hybrids, 1975-1978

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 UC 1901		62	79		1	2		21	17
ACCO UC 2301	62	61	78	2	2	3	21	23	18
ASGROW RX 2222			75			2			17
CARGILL 810			69			1			15
CARGILL 838			85			3			17
CENEX 3015		63	79		1	2		21	17
CHECK =4	66	65	82	0	0	0	22	22	18
CHECK =8	53	54	71	2	3	3	19	20	16
FUNKS G-4085			68			2			15
FUNKS G-4195		54	68		1	1		21	17
PAYCO SX 680		65	79		0	0		22	18
PAYCO SX 775	64	63	84	1	2	1	23	24	19
PRIDE 4417			81			1			18
PRIDE 4488			81			0			20
SOKOTA TS-44			79			1			17
SOKOTA TS-64			86			1			23
TOP FARM SX 100			83			1			18
TOP FARM SX 97			79			2			17
TROJAN TXS 102			95			1			21
TROJAN TXS 99	63	63	79	1	1	2	20	21	17

Table 14. 1978 Corn Performance Trial, Area C1(irrigated), James Valley Research Farm, Redfield

BRAND AND VARIETY	TYPE AND CROSS	Y[FLO B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
MC CURDY MSX 37	2X	136.0	0.0	6.2	0.0	17.3	1
MC CURDY 77-48	2X	131.2	0.0	3.5	0.0	23.0	8
SOKOTA TS-62	2X	131.2	0.0	0.5	0.0	20.5	2
NORTHRUP-KING PX 37	2X	130.8	0.0	1.0	0.0	20.7	3
PAYCO SX 775	2X	130.5	0.0	4.7	0.0	19.5	5
DISCO SX-24	2X	130.3	0.0	1.3	0.0	22.4	7
NORTHRUP-KING PX 49	2X	130.1	0.0	4.3	0.0	18.9	4
MC CURDY 77-49	2X	129.8	0.0	0.9	0.0	22.1	6
SOKOTA TS-67	2X	127.2	0.0	2.1	0.0	21.1	9
MC CURDY MSX 44A	2X	125.2	0.0	3.0	0.0	21.5	11
PRIDE 4488	2X	124.1	0.0	2.0	0.0	20.8	12
P-A-G SX 67	2X	123.0	0.0	3.7	0.0	16.9	10
SOKOTA TS-64	2X	122.6	0.0	8.9	0.0	19.5	13
MC CURDY MSX 46	2X	122.4	0.0	4.3	0.0	22.1	18
PAYCO SX 844	2X	121.4	0.0	3.2	0.0	23.1	23
RBA 104	3X	121.0	0.0	0.5	0.0	21.2	14
SOKOTA SS-67	M2X	120.9	0.0	2.5	0.0	21.5	21
PRIDE 5578	2X	120.7	0.0	7.0	0.0	19.8	22
CURRY SC-141	2X	119.9	0.0	1.4	0.0	20.5	17
SECURITY SS-102	2X	118.7	0.0	9.9	0.0	19.4	26
CURRY SC-1422	2X	118.7	0.0	4.0	0.0	18.2	16
WILSON 1016	2X	118.6	0.0	4.5	0.0	20.8	24
TROJAN T 1008	2X	118.3	0.0	4.0	0.0	17.9	19
NORTHRUP-KING PX 45	2X	117.9	0.0	3.4	0.0	20.9	25
SDAES CHECK 2	2X	117.1	0.0	5.2	0.0	16.4	20
ASGROW RX 40	2X	115.4	0.0	2.7	0.0	15.1	15
TROJAN TXS 94	2X	115.1	0.0	7.1	0.0	19.2	27
TOP FARM SX 110	2X	114.9	0.0	0.9	0.0	23.7	35
NORTHRUP-KING PX 46	2X	113.6	0.0	2.0	0.0	21.7	32
SDAES EX 107	2X	112.7	0.0	3.8	0.0	20.3	33
P-A-G SX 177	M2X	111.5	0.0	5.9	0.0	16.2	28
SOKOTA SS-51	M2X	111.5	0.0	2.9	0.0	17.8	30
CARGILL 430	3X	111.4	0.0	2.4	0.0	19.5	34
NORTHRUP-KING PX 34	2X	111.4	0.0	3.1	0.0	19.8	36
CARGILL 838	M2X	111.0	0.0	0.9	0.0	17.9	29
ACCO UC 3301	2X	110.9	0.0	1.5	0.0	22.5	41
FUNKS G-4224	M2X	110.6	0.0	3.0	0.0	16.9	31
P-A-G SX 210	M2X	110.4	0.0	3.3	0.0	20.0	38
PAYCO SX 737	2X	109.4	0.0	5.2	0.0	18.5	39
ASGROW RX 55	3X	108.4	0.0	7.2	0.0	19.8	43
P-A-G SX 189	M2X	107.6	0.0	4.1	0.0	20.7	47
TOP FARM SX 97	2X	107.5	0.0	3.5	0.0	15.9	37
TOP FARM SX 103	2X	107.4	0.0	3.4	0.0	20.2	44
ACCO UC 3301A	2X	107.1	0.0	2.9	0.0	22.9	52
NORTHRUP-KING PX 26	2X	107.1	0.0	8.2	0.0	17.2	42
SECURITY SS-97	2X	106.3	0.0	7.5	0.0	19.2	49
RBA 94+	2X	106.1	0.0	1.9	0.0	16.5	40
SOKOTA TS-49	2X	105.9	0.0	4.5	0.0	18.4	45
WILSON 1400	2X	105.5	0.0	2.3	0.0	21.8	53
TOP FARM SX 106A	2X	105.2	0.0	2.0	0.0	18.9	46
WESTERN KX-55	2X	104.8	0.0	3.1	0.0	23.0	63
SOKOTA TS-44	2X	104.3	0.0	7.3	0.0	16.8	48
ACCO UC 2851	2X	103.9	0.0	2.6	0.0	20.2	55
TROJAN TXS 102	2X	103.0	0.0	3.4	0.0	21.9	65
RBA 92	3X	102.7	0.0	11.6	0.0	17.6	67
SDAES CHECK 3	2X	102.6	0.0	6.0	0.0	16.7	50
PRIDE 2269	2X	102.3	0.0	7.4	0.0	16.2	51
TOP FARM SX 100	2X	101.6	0.0	4.2	0.0	18.7	61
MC CURDY MSP 111	3X	101.1	0.0	4.1	0.0	18.1	60
CENEX 2111	2X	101.1	0.0	5.5	0.0	16.7	58
ASGROW RX 37	3X	100.4	0.0	8.9	0.0	15.2	59

Table 16. 1978 Corn Performance Trial, Area C2, William Fijala Farm, Geddes

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT	PCT	PCT	PERCENT MOISTURE	PERFORMANCE SCORE RATING
			ROOT LODGED	STALK LODGED	EARS DROPPED		
CENEX 2157	2X	130.6	0.0	7.9	3.9	15.9	1
SOKOTA TS-64	2X	123.8	0.0	13.5	1.6	13.0	2
PRIDE 5578	2X	122.1	2.5	10.2	0.0	15.5	3
ACCO UC 8201	2X	117.6	0.0	3.3	0.8	18.2	5
NORTHRUP-KING PX 603	3X	116.4	0.0	3.3	2.5	15.3	4
ACCO UC 3301A	2X	115.5	2.5	7.6	0.8	18.4	6
PRIDE 6678	2X	112.8	0.0	6.8	0.0	17.4	8
PRIDE 7715	2X	112.7	0.0	0.8	0.0	24.6	12
WESTERN KX-55	2X	112.5	0.0	4.1	1.6	17.2	7
TROJAN T 1120	2X	110.1	0.0	3.4	0.8	18.5	10
NORTHRUP-KING PX 49	2X	109.5	1.6	9.8	0.8	15.3	9
NORTHRUP-KING PX 69	2X	107.8	0.0	4.9	0.0	18.5	14
CURRY SC-150	2X	106.7	0.0	4.0	0.0	20.9	18
TROJAN TXS 115A	2X	106.3	0.0	2.6	0.0	16.7	13
CARGILL 838	M2X	105.2	0.0	9.2	0.0	12.1	11
DISCO SX-24	2X	104.3	1.7	2.5	0.0	17.6	15
CURRY TC-348	3X	101.4	0.0	3.1	2.4	22.1	20
PRIDE 4488	2X	101.4	0.0	0.8	0.8	15.7	17
ACCO UC 3301	2X	101.0	0.0	7.4	0.0	22.3	22
SOKOTA TS-44	2X	100.9	0.0	6.5	0.0	12.7	16
WESTERN KX-60	2X	98.8	0.0	0.8	0.8	20.0	21
CARGILL 430	3X	97.5	4.1	8.3	0.0	11.5	19
DISCO SX-30	2X	96.9	0.0	3.3	0.0	19.9	23
PAYCO SX 844	2X	94.8	0.0	2.5	0.8	18.4	24
NORTHRUP-KING PX 45	2X	92.0	0.0	10.7	3.3	16.0	26
TROJAN TX 111	3X	91.0	0.0	5.3	0.9	18.9	28
CURRY SC-147	2X	90.7	0.0	3.3	0.0	16.3	25
NORTHRUP-KING PX 46	2X	90.1	3.4	5.2	0.0	20.5	30
ASGROW RX 2345	2X	89.9	0.0	7.2	0.8	18.0	29
ASGROW RX 55	3X	89.4	0.0	4.2	0.0	17.0	27
CENEX 2203	2X	81.0	0.0	4.0	0.0	18.5	33
SDAES CHECK 3	2X	79.1	0.0	4.4	0.9	11.6	31
SDAES CHECK 2	2X	78.6	0.0	8.0	0.0	11.9	32
SDAES CHECK 4	2X	74.5	0.0	4.2	0.0	24.6	34
Means		100.7		5.5		17.2	

LSD (.05)

18.6

C.V. - % = 13.3

Table 17. Area C2 2-, 3-, and 4-year yield, moisture and stalk lodging averages of corn hybrids, 1975-1978

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 UC 3301			99			10			22
ACCO UC 3301A			104			14			20
ASGROW 2345			85			7			16
CHECK =2			88			10			16
CHECK =3			79			7			13
CHECK =4			81			6			23
CURRY TC-348			100			2			23
DISCO SX 30			91			5			24
NORTHRUP-KING PX 46			93			7			21
PRIDE 4488			95			1			16
PRIDE 7715			108			2			26
TROJAN TXS 111			99			4			20
TROJAN TXS 115A			104			2			23

Table 18. Area B2 Corn Performance Trial, Harold Weischedel Farm, Agar

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
SDAES EX 214	2X	57.3	0.0	0.0	0.0	28.4	1
SOKOTA TS-44	2X	51.0	0.0	0.0	0.0	21.7	3
SDAES CHECK 4	2X	50.2	0.0	0.0	0.0	26.9	6
SDAES CHECK 7	2X	49.2	0.0	0.0	0.0	14.2	2
TOP FARM SX 394	3X	48.5	0.0	0.0	0.0	19.7	4
CENEX 3015	3X	47.4	0.0	0.0	0.0	22.3	10
SDAES CHECK 8	2X	47.2	0.0	1.7	0.0	17.8	5
CENEX 2111	2X	47.1	0.0	0.0	0.0	23.9	13
SDAES EX 215	3X	46.4	0.0	0.0	0.0	17.7	7
SDAES EX 102	2X	46.3	0.0	0.8	0.0	18.0	8
SDAES EX 105	2X	46.2	0.0	0.0	0.0	21.0	12
SDAES EX 218	3X	46.0	0.0	0.0	0.0	19.9	11
SDAES EX 216	2X	45.6	0.0	0.0	0.0	17.5	9
TOP FARM SX 95	M2X	44.0	0.0	0.0	0.0	19.0	14
SDAES EX 103	2X	42.7	0.0	0.0	0.0	20.7	16
TOP FARM SX 91	M2X	42.1	0.0	0.8	0.0	15.4	15
SDAES EX 217	3X	39.9	0.0	0.0	0.0	32.2	19
WESTERN KX-33	M2X	39.7	0.0	0.0	0.0	18.5	17
SOKOTA MS-27	M2X	34.3	0.0	0.0	0.0	15.2	18
SDAES CHECK 6	3X	29.5	0.0	0.0	0.0	18.7	20
Means		45.0		0.2		20.4	
LSD (.05)		16.7		C.V. - % = 16.3			

Table 19. Listing of hybrid corn entries harvested and the tables where the results appear.

Company & Brand	Variety	Tables	Company & Brand	Variety	Tables
Cenex	2004	11	Cargill, Inc.	430	8,11,14,16
PO Box 43084	2111	6,7,11,14,18	PO Box 9300-D16	810	8,9,11,13,14,15
St. Paul, MN 55164	2125	6,18	Minneapolis, MN 55440	838	8,9,11,13,14,15,16
"Cenex"	2157	8,10,16	"Cargill"	863	8,9
	2203	8,10,16		890	10,12
	3015	11,13,14		924	10
Curry Seed Co.	SC-141	8,9,14	Funk Seeds, Int'l.	G-4085	11,12
Box 517	SC-142-1	8	1300 W. Washington	G-4141	14,15
Elk Point, SD 57025	SC-1422	11,14	PO Box 2911	G-4171	11,14
	SC-1451	11	Bloomington, IL	G-4195	8,9,11,12,14
	SC-147	10,12,16	"Funks"	G-4224	8,14
	SC-150	16		G-4323	8
	TC-347	10		G-4444	8
	TC-348	16,17	King's Western Seed	KX-33	6,18
			205 Wyoming Ave SW	KX-35	11
Disco Seeds	SX-9B	8,9,14	Huron, SD 57350	KX-55	8,11,14,16
PO Box 640	SX-24	10,16	"Western"	KX-60	8,10,11,16
Mitchell, SD 57301	SX-27	10,12		KX-64	10
"Disco"	SX-30	16,17	McCurdy Seed Co.	MSX 37	8,9,10,12,14,15
	SP-130	8,14	Fremont, IA 52561	MSX 42	8,9
Green Acres	77-9A-12	10	"McCurdy"	MSX 44A	8,9,10,14,15
Hartington, NE	M4-10-12	10		MSX 46	10,12,14,15
68739	L17	10		MSP 111	8,9,14,15
Pfizer Genetics	TXS 94	14,15		73-91	8,9
Box 166	TXS 99	11,13		76-10	14,15
Olivia, MN 56277	TXS 102	11,13,14,15		77-48	10,14
"Trojan"	TXS 111	16,17		77-49	10,14
	TXS 115A	16,17	P-A-G Seeds	SX 67	8,14
	TX 99A	11	PO Box 9480, D16	SX 177	8,9,11,14,15
	T 1008	14	Minneapolis, MN 55440	SX 189	8,9,10,11,14
	T 1120	16	"P-A-G"	SX 210	8,9,11,14,15
Lynks Hybrids	LX 4220A	10		SX 397	8,10,12
Box 637	LX 4120	10		314	10,12
Marshalltown, IA					
RBA, Inc.	92	8,14	Northrup, King & Co.	PX 26	8,9,14,15
American Bank Bldg.	94+	8,14	PO Box 959	PX 34	11,14
Olivia, MN 56277	104	8,14	Minneapolis, MN 55440	PX 37	8,11,14
"RBA"			"NK"	PX 45	8,11,14,16
				PX 46	8,9,14,15,16,17
Security Seed Co.	SS-97	8,14		PX 49	8,10,11,14,16
Route 1	SS-102	14		PX 69	10,16
Williamsburg, IA	SS-105	8,14		PX 74	10,12
"Security"	ST-105	8		PX 603	10,16
	SS-106	8			
	SS-108	8,14	Payco Seeds	SX 680	6,7,8,9,11,13,14,15
ACCO Seeds	UC 1901	11,13	PO Box 70	SX 737	6,8,11,14
PO Box 9	UC 1905	6	Dassel, MN 55325	SX 775	6,7,8,9,11,13,14,15
Belmond, IA 50421	UC 2301	11,13	"Payco"	SX 844	8,10,11,14,16
"ACCO"	UC 2851	14		SX 990	10
	UC 2951	6			
	UC 3002	8,11	Pride Company, Inc.	2206	6,7
	UC 3301	14,15,16,17	Glen Haven, WI 53810	2269	11,14
	UC 3301A	8,10,12,14,16,17	"Pride"	3315	6,7
	UC 7951	10		4417	6,11,13
	UC 8201	16		4488	6,7,8,9,10,11,12,13, 14,15,16,17
Asgrow Seed Co.	RX 37	11,14		5578	8,10,14,16
PO Box 1059-Clive	RX 40	8,9,11,14,15		5589	8,10
Des Moines, IA 50053	RX 55	10,14,16		6678	10,16
"Asgrow"	RX 2222	8,9,11,13		7715	16,17
	RX 2345	8,9,10,12,14,15,16,17		R-328	8,11,14

Table 19 (cont).

Company & Brand	Variety	Tables
Sokota Hybrids	MS 27	18
Box 250	TS 44	8,11,13,14,15,16,18
Brookings, SD 57006	TS 49	8,9,14,15
"Sokota"	SS 51	6,7,8,9,11,14,15
	TS 62	6,8,11,14
	TS 64	6,7,8,9,11,13,14,15, 16
	SS 67	11,14,15
	TS 67	14,15
	TS 74	10,12
	SK 79	10,12
Top Farm Hybrids	TFsx 91	18
Box 10	TFsx 95	18
Cokato, MN 55321	TFsx 97	8,9,11,13,14
	TFsx 100	8,9,11,13,14
	TFsx 103	8,11,14
	TFsx 106A	8,14
	TFsx 110	14,15
	TF 394	18
	TF 3102	8
Wilson Hybrids, Inc.	1016	10,12,14
Box 391	1400	10,12,14
	1400a	10
	1800	10
South Dakota	Check 2	10,12,14,15,16,17
Agricultural	Check 3	6,7,8,9,10,12,14,15,16,17
Experiment	Check 4	6,7,8,9,11,13,16,17,18
Station	Check 5	6,8,9,10,11,14,18
"SDAES"	Check 6	18
	Check 7	6,7,8,9
	Check 8	11,13,18
	Ex 102	6,18
	Ex 103	6,18
	Ex 105	6,18
	Ex 107	8,9,14,15
	Ex 214	6,18
	Ex 215	18
	Ex 216	18
	Ex 217	6,18
	Ex 218	6,18

1978 CORN PERFORMANCE TRIALS

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