1-1982

1981 Corn Performance Trials

J. J. Bonnemann
South Dakota State University

Corn Performance Trials for 1981

C 237
January 1982

Agricultural Experiment Station
South Dakota State University
Brookings

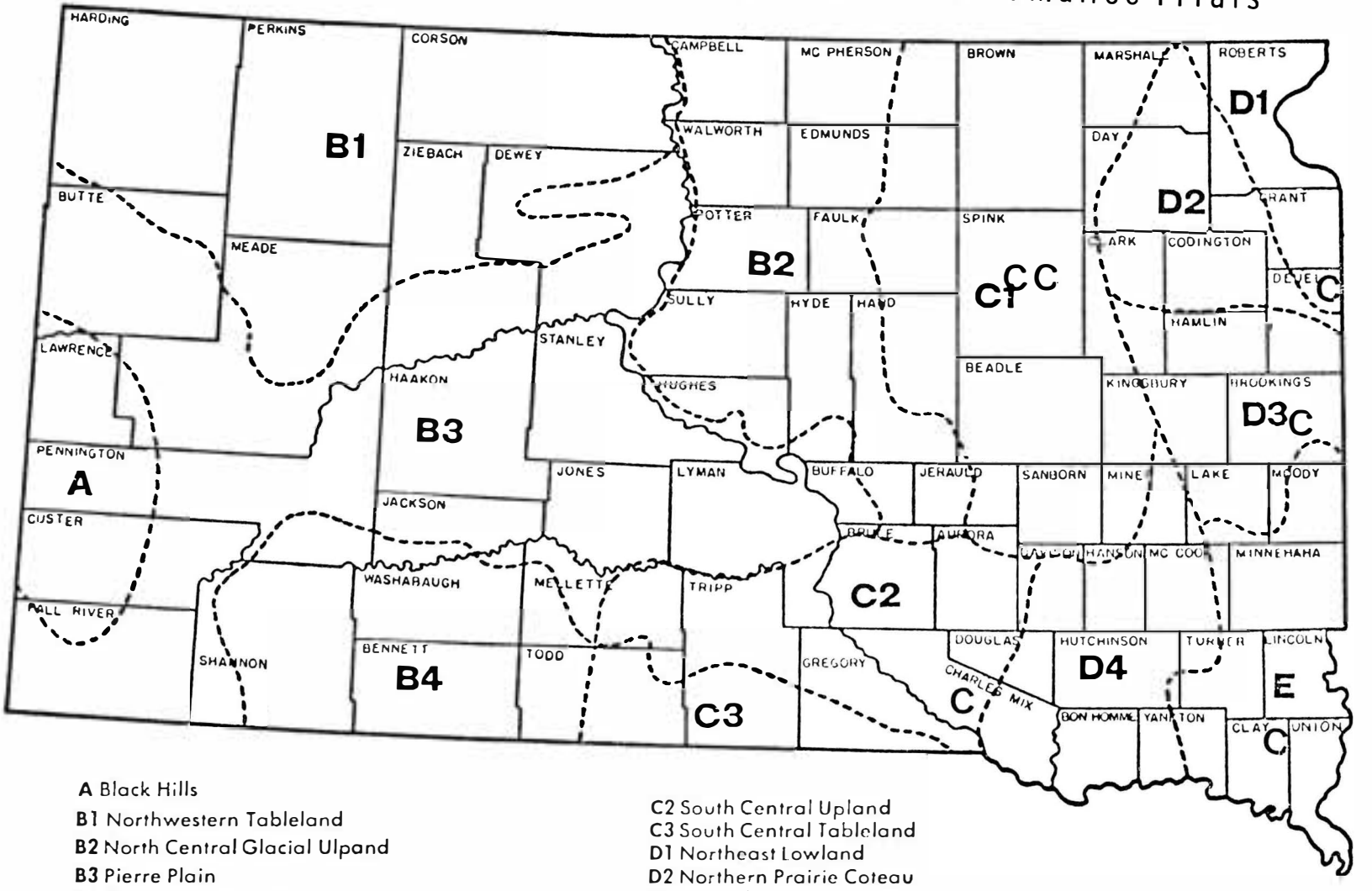
Listing of Tables

Published in accordance with an Act passed in 1881 by the 14th Legislative Assembly, Dakota Territory, establishing the Dakota Agriculture College and with the Act of re-organization passed in 1887 by the 17th Legislative Assembly, which established the Agricultural Experiment Station at South Dakota State University
File 1.4:1 1—5M—182—825

CROP ADAPTATION AREAS OF

SOUTH DAKOTA

C - Indicates sites of 1981 Corn Performance Trials



A Black Hills
B1 Northwestern Tableland
B2 North Central Glacial Ulpand
B3 Pierre Plain
B4 Southwestern Tableland
C1 Northern James Valley

C2 South Central Upland
C3 South Central Tableland
D1 Northeast Lowland
D2 Northern Prairie Coteau
D3 Central Prairie Coteau
D4 Southern James Flatland
E Southeast Prairie Upland

1981 Corn Performance Trials

J. J. Bonnemann, Assistant Professor

Plant Science Department
Agricultural Experiment Station
South Dakota State University
Brookings, SD 57007-1096

The relative performance of corn hybrids grown under similar environmental conditions in 1981 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 1981 and available two-, three-, and four-year averages of yield, moisture and stalk lodging percentages are also presented. The trials reported here were conducted under the Plant Science Department program in Crop Performance Testing, Agricultural Experiment Station, SDSU.

Location of the 1981 Trials

Trials were located in the crop adaptation areas marked on the accompanying map of South Dakota. The exact location of each trial and date of seeding and harvesting are included in Table 1. The soil classification, laboratory analyses of soil samples taken and fertility applied at each site are given in Table 2.

Weather and Climatic Conditions

Climatic data (Table 3) for the 1981 corn growing season, May-October, are based upon infomation obtained from a U.S. Weather Bureau station reasonably near each trial site. The Milbank recording station is closest to the field north of Gary in Deuel County. Stations are located at or near the other trial sites; the Armour station representing the Geddes trial. Precipitation quantities would vary from the actual site to the recording station but temperatures are similar over a much wider area and considered applicable to the trial area.

Precipitation was below normal for the months of May-October 1981 at all but the Centerville station. May was dry until late in the month when sufficient moisture fell over most of the state to insure germination. One-third of the total acreage in the state was seeded by May 10 and two-thirds by May 17. The trials were seeded during the period May 6 through May 20.

Total moisture was below normal for the month of June at most locations, but timely precipitation fell preventing serious delays in growth. Above normal rainfall occurred at all but the Redfield site in July. Below normal temperatures during the same period delayed tasseling and silking. The favorable moisture continued falling until nearly mid-August and coupled with the below normal temperatures combined to produce excellent plant growth at all but the dryland trial at Redfield. Though the rains essentially stopped in mid-August, temperatures did not become extremely hot nor did long periods of hot, dry winds occur.

The assistance of the following individuals is appreciated: G. W. Erion and Z. W. Wicks of the Plant Science Department; Albert Dittman, Burton Lawrensen, Herb Lund, Lucian Edler, Kevin Kirby and Delbert Robbins of the stations; and cooperators William Fijala and John Heaton.

Table 1. Location of Trials, Dates of Seeding and Harvesting of the 1981 Corn Performance Trials, South Dakota

Area	County	Location	Post Office	Dates Seeded	Dates Harvested
C1-dry	Spink	James Valley Res. Farm, 6 E	Redfield	May 13	Nov. 4
CI-irr.	Spink	James Valley Res. Farm, 6 E	Redfield	May 13	Nov. 3
C2	Charles Mix	Wm. Fijala Farm, 2E, 1N, 1E	Geddes	May 20	Oct. 20
D1	Deuel	John Heaton Farm, 1W, 6N	Gary	May 6	Oct. 21
D3	Brookings	Plant Science Farm, 2NE	Brookings	May 7	Oct. 29
E	Clay	Southeast Exp. Farm, 7W, 3S	Beresford	May 14	Nov. 6

Warm, dry weather in September with no severe killing freeze helped mature the corn. Nice weather continued into October with no killing tempeatures occurring until late in the month at some locations. The rainfall during the later part of July and early part of August, 2-3 inches at most sites, insured a corn crop that would have otherwise been quite poor at many locations.

The absence of a killing frost aided in maturing many hybrids in the trials as well as farmers' fields. However, the corn did not dry down and only half the corn was harvested statewide by October 25; about 95% by November 15 or 5% above normal for that time of the year. The trial plots were harvested between October 20 and November 6.

Lodging was not a serious problem at any site despite several days of extremely strong winds in mid-October. The late killing freeze occurred after the severe winds and many main stalks were still green at harvest time. Ear droppage was not a serious problem in any of the trials. Corn borers were not a widespread problem in the state during 1981.

The irrigated trial at Redfield received two applications of water. Cooler temperatures during possible stress periods prevented serious setbacks to the plants.

The growing season was longer than normal at most sites. Dates between last frost in the spring and first frost in the fall were near normal but hard, killing temperatures affecting the stalk did not occur until late in the season, thus possibly favoring later maturing hybrids at some sites. Early frosts occurred on September 17 at all but the Milbank location but the frost was of short duration and hardly nipped the upper leaves.

Table 2. Laboratory Analyses, Soil Classification and Fertilizer Applied to the 1981 Corn Performance Trial Fields.

Area	Classification	% O.M.	P lb/A	K lb/A	pH	Preparation and method	lb/A N	lb/A P	lb/A K
C1-dry	Beotia SiCl	2.4	36	890	7.0	Plowed and disced (wheat)	29	14	0
C1-irr.	Beotia SiCl	2.9	65	910	7.1	Plowed and disced (sorghum)	125	20	0
C2	Highmore SiCl	2.6	32	950	7.5	Plowed and disced (sm grain)	manured		
D1	Forman SiCl	3.0	65	370	6.6	Plowed and disced (soybeans)	100	40	40
D3	Lismore SiL	2.6	16	280	6.9	Plowed and disced (millet)	90	25	0
E	Egan SiL	2.9	54	920	6.2	Plowed and disced (sm grain)	80	30	20

Table 3. Temperature and Precipitation Data for the 1981 Corn Growing Season in South Dakota.

Site and District	Month	Temperature °F				Precipitation, inches		
		Mean Ave.	Departure from normal	Ave. departure	Days 90°F	Month total	Departure from normal	Total departure
Armour[a]	May	58.5	-1.2		2	2.25	-0.63	
	June	71.2	+2.1		8	2.34	-1.93	
C2	July	75.4	-0.1		15	3.56	+0.87	
	August	71.7	-2.4		8	1.66	-1.09	
	Sept.	65.3	+2.0		6	1.42	-0.85	
	Oct.	50.8	+1.5	-0.1	0	1.69	+0.23	-3.40
First Freeze		31° - 9/17				12.92		
Brookings	May	53.7	-2.5		0	0.71	-2.49	
2 NE	June	65.7	0		1	2.89	-1.69	
	July	70.4	-0.7		3	4.01	+1.17	
D3	August	78.4	-2.2		1	3.69	+0.83	
	Sept.	59.1	-0.1		2	0.74	-1.50	
	Oct.	45.2	-3.5	-1.5	0	2.86	+1.39	-2.29
First freeze		32° - 9/18				14.90		
Centerville	May	56.3	-4.4		0	1.66	-1.82	
6 SE	June	68.7	-1.5		3	5.09	+0.39	
	July	71.6	-3.7		6	5.76	+2.65	
E	August	67.7	-6.2		0	3.77	+0.73	
	Sept.	61.7	-2.0		3	1.26	-1.42	
	Oct.	48.4	-4.8	-3.7	0	1.70	+0.69	+1.22
First freeze		28° - 9/17				18.88		
Milbank	May	54.8	-2.9		0	1.48	-1.57	
2 SSW	June	68.1	+0.8		0	3.95	-0.36	
	July	70.4	-2.4		5	4.67	+1.85	
D1	August	69.9	-1.6		4	2.04	-0.53	
	Sept.	59.7	-1.4		3	0.57	-1.46	
	Oct.	46.9	-3.9	-1.9	0	2.21	+0.66	-1.41
First freeze		20° - 10/2				14.92		
Redfield	May	55.1	b		0	1.12	b	
6 E	June	66.4			3	2.63		
	July	74.2			15	1.19		
C1	August	71.1			6	0.71		
	Sept.	61.9			4	0.71		
	Oct.	46.5			0	0.80		
First freeze		28° - 9/17				9.73		

a - Based upon reports of Monthly Climatological Data, National Climatic Center, Ashville, NC.

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

Hybrid Entry Procedure

Hybrids in the trials are entered by the participating companies and they designate the locations where their entries are to be grown. A fee was charged for each entry in each area except for hybrids included by the Agricultural Experiment Station. Either closed or open-pedigree hybrids are eligible and each was allowed to be entered once in each adaptation area. A maximum of 6 entries could be entered by a company at any trial site. A listing of the firms, with brands and hybrids harvested, is presented in Table 17.

Hybrids frequently used by the industry have been used as check entries since 1975. These are indicated in the trials as SDAES Check 2, 4, 10 etc. The identities of the checks are as follows:

Check 1 = B73 x Mo17Ht	Check 9 = Mo17 x A634
Check 2 = A632Ht x A619Ht	Check 10 = A632 x W153R
Check 4 = W64Ht x W117Ht	Check 11 = A554 x CM105

Experimental Procedure

Entries included in each trial were seeded in four or more replications. Two population levels were included at sites where climatic conditions generally are more favorable for growing corn. 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 the insecticide used in the past years. A recommended short-residue preemergence herbicide was banded over the row at seedling at all sites. Atrazine was sprayed over the entire plot area at Brookings for grassy weed control.

All trials were seeded as drilled corn. A 31-cell cone seeder was used for the single-row plots or an Oyjord small-batch type feeder with 2-row divider was used for the two-row plots. These units were mounted above commercial flexi-planter units with double disc openers. Seeding rate was 20% more kernels than the number of plants per plot desired. Plots were thinned to the desired stands when necessary.

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 1981 coefficients of variation were within statistical limitations acceptable for corn (5-15%) at all sites in 1981.

Two populations were seeded at three locations: Brookings, Southeast Farm and Redfield (irrigated). No statistical significance was found for populations at any of the three sites in 1981.

Table 4. Field methods for the 1981 corn trial sites.

Area	Table No.	Number of Replications Harvested	Method of Seeding	Final Population Obtained	Rows Number of	Rows Width inches	Rows Length feet
C1-dry	7	4	drilled	10,226	2	36	22
C1-irr.	10	3	drilled	20,830	2	36	18
C1-irr.	10	3	drilled	24,086	2	36	18
C2	12	4	drilled	10,278	2	40	18
D1	6	4	drilled	16,509	1	30	36
D3	15	2	drilled	11,999	1	36	32
D3	15	2	drilled	15,861	1	36	32
E	14	2	drilled	15,685	2	36	18
E	14	2	drilled	19,523	2	36	18

To convert data in these tables to the metric system of kilograms or quintals per hectare use the following methods. (The factor 1.121 converts from Lb/A to Kg/ha).

I. 1 bu. #2 shelled corn = 56 lb.; 1 lb/ = .454 kilograms; 1 hectare = 2.741 acres; so 54 x .454 x 2.471 = 60.6 x B/A = kilograms per hectare

II. Or, assuming a yield of 60.6 B/A from the tables:
Step 1 = 60.6 B/A x 54 lb/B - 3272 lb/acre
Step 2 = 3272 lb/acre x 1.121 = 3668 kilograms/hectare or 36.7 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 1981 at most sites. Some of the earliest varieties in the trials had stalk breakage and/or ear droppage but harvest occurred when all plants were dry enough to harvest not the early maturity hybrids.

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

Table 5. Harvest methods and moisture determinations for the 1981 con trials.

Area	Harvest methods	Samples used for Moisture Determinations	Moisture Determined
C1-dry	Plot combine	Shelled corn	Electronically
C1-irr.	Plot combine	Shelled corn	Electronically
C2	Hand picked	Ear sections	Oven-dried
D1	Picker-sheller	Shelled corn	Electronically
D3	Picker-sheller	Shelled corn	Electronically
E	Plot combine	Shelled corn	Electronically

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, moisture percentage 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 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 high 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 manner or fashion.

In choosing a hybrid, first check those which yield 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. 1981 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
CURRY SC-1424	M 2X	132.0	0.0	0.8	0.0	23.8	1
STAUFFER S5260	M 2X	127.4	0.0	0.8	0.0	23.8	2
TOP FARM SX104A	M 2X	126.4	0.0	2.4	0.0	24.0	3
PRIDE 5592	M 2X	123.8	0.0	2.4	0.0	24.2	5
CURRY SC-1420	E 2X	123.8	0.0	0.0	0.0	24.7	4
SOKOTA 660	M 2X	121.5	0.0	0.0	0.0	24.4	6
CURRY SC-1422	M 2X	121.1	0.0	3.2	0.0	24.6	7
KELTGEN KS102	M 2X	119.7	0.0	0.8	0.0	24.7	9
SEEDTEC CX8154	M 2X	119.5	0.0	3.3	0.0	24.3	10
KELTGEN KS104	M 2X	118.5	0.0	0.0	0.0	23.5	8
CARGILL 872	M 2X	118.4	0.0	2.4	0.0	23.7	11
CURRY SC-1421	E 2X	117.1	0.0	4.9	0.0	25.0	20
MIGRO M-2022X	E 2X	116.9	0.0	0.8	0.0	24.0	13
LYNKS LX4210	M 2X	116.9	0.0	0.8	0.0	23.9	12
ACCO PAYMSTR UC2990	M 2X	116.8	0.0	3.2	0.0	23.5	16
TROJAN T1000	M 2X	116.4	0.0	1.6	0.0	23.4	14
DE KALB XL-36	M 2X	115.7	0.0	3.2	0.0	24.4	21
CENEX 2108	M 2X	115.6	0.0	6.5	0.0	24.1	27
TROJAN TXS102	M 2X	115.5	0.0	2.5	0.0	25.0	25
CS GOLD 6880	M 2X	115.3	0.0	0.8	0.0	23.8	18
MIGRO HP-360	E 2X	114.2	0.0	2.6	0.0	23.7	26
KALTENBURG KX61	M 2X	113.9	0.0	0.8	0.0	23.6	22
STAUFFER S4402	M 2X	112.6	0.0	0.0	0.0	20.1	15
STAUFFER S5602	M 2X	112.2	0.0	1.6	0.0	23.6	28
TALL CORN SX104	M 2X	112.1	0.0	0.0	0.0	20.4	17
SEEDTEC CX8152	2X	111.3	0.0	0.0	0.0	20.0	19
NORTHRUP KING PX49	M 2X	111.3	0.0	4.1	0.0	21.9	29
WESTERN KX55	M 2X	110.7	0.0	0.8	0.0	23.8	33
KALTENBURG KX58	M 2X	110.6	0.0	4.8	0.0	24.0	38
SOKOTA TS-60	M 2X	110.6	0.0	0.0	0.0	20.5	23
CURTIS 460	E 2X	110.5	0.0	4.1	0.0	23.5	36
TOP FARM SX99	M 2X	110.0	0.0	4.9	0.0	21.6	31
PAG SX249	M 2X	109.9	0.0	5.1	0.0	24.6	42
LYNKS LX4127	M 2X	109.8	0.0	1.6	0.0	23.3	34
TOP FARM SX104	M 2X	109.6	0.0	0.0	0.0	19.7	24
ASGROW RX511	M 2X	109.5	0.0	3.2	0.0	22.5	35
STAUFFER B606WX	M 2X	108.6	0.0	2.4	0.0	25.8	50
CENEX 2157	L 2X	108.4	0.0	0.8	0.0	24.2	40
NORTHRUP KING PX39	M 2X	108.3	0.0	0.8	0.0	24.9	46
ACCO PAYMSTR UC3002	M 2X	108.1	0.0	1.6	0.0	24.1	44
PAG SX181	E 2X	107.8	0.0	6.4	0.0	22.3	45
MC CURDY 4664	E 2X	107.7	0.0	9.8	0.0	21.4	48
FUNKS G-4315	M M2X	106.8	0.0	4.0	0.0	21.4	39
LYNKS LX4040	E 2X	106.7	0.0	1.6	0.0	19.2	30
SOKOTA 450	E 2X	106.5	0.0	0.8	0.0	19.4	32
LYNKS LX4075	E 2X	105.9	0.0	0.8	0.0	20.2	37
ACCO PAYMSTR UC2951	M 2X	105.5	0.0	0.8	0.0	22.1	47
LYNKS LX4100	E 2X	105.3	0.0	2.7	0.0	24.4	55
SDAES CHECK 2	M 2X	105.0	0.0	2.4	0.0	24.3	56
MC CURDY 5596	M 2X	105.0	0.0	5.7	0.0	27.8	72
CARGILL 834	E 2X	104.9	0.0	2.4	0.0	21.3	49
KELTGEN KS95	E 2X	104.8	0.0	1.6	0.0	20.7	43
NORTHRUP KING PX59	M 2X	104.4	0.0	4.0	0.0	24.1	61
DE KALB XL-28	M 2X	104.3	0.0	3.2	0.0	23.9	59
STAUFFER B606	M 2X	104.2	0.0	2.4	0.0	25.7	65
MC CURDY 5225	M 2X	104.1	0.0	1.6	0.0	24.6	60
TOP FARM SX103	M 2X	103.9	0.0	0.8	0.0	22.6	52
MIGRO HP-201	E 2X	103.8	0.0	1.7	0.0	19.4	41
PRIDE 3322	E 2X	103.6	0.0	0.8	0.0	21.6	51
DE KALB XL-25A	M 2X	103.4	0.0	2.4	0.0	22.7	57
DE KALB XL-18	M 2X	103.3	0.0	0.0	0.0	23.0	54

Table 6. (continued)

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
CENEX 3103	M 3X	103.2	0.0	0.8	0.0	22.2	53
MIGRO HP-470	L 2X	102.4	0.0	1.6	0.0	31.0	80
PAG SX189	E 2X	102.3	0.0	6.6	0.0	22.3	66
MC CURDY 4855	M 2X	102.3	0.0	2.5	0.0	23.9	67
FUNKS G-4224	E M2X	101.4	0.0	4.0	0.0	21.3	62
SOKOTA 420	E 2X	100.6	0.0	1.6	0.0	20.6	58
SOKOTA TS-62A	M 2X	100.5	0.0	0.0	0.0	23.3	69
MIGRO HP-401	M 2X	100.0	0.0	1.6	0.0	27.5	79
NORTHRUP KING PX69A	L M2X	100.0	0.0	1.6	0.0	24.6	74
CARGILL 862	E 2X	99.9	0.0	4.0	0.0	22.8	70
PRIDE 4488	M 2X	99.8	0.0	1.6	0.0	25.0	75
WESTERN KX52	M 2X	99.6	0.0	2.4	0.0	25.8	78
STAUFFER S4406WX	M 2X	99.6	0.0	8.9	0.0	22.7	76
FUNKS G-4256	M 3X	99.5	0.0	1.6	0.0	21.1	64
SEEDTEC CX8150	M 2X	99.3	0.0	5.0	0.0	21.9	71
MIGRO HP-277	E 2X	99.1	0.0	0.0	0.0	20.3	63
SDAES CHECK 10	M 2X	98.6	0.0	2.4	0.0	20.4	68
TALL CORN SX97	E 2X	97.7	0.0	1.6	0.0	22.2	73
SDAES CHECK 9	M 2X	97.7	0.0	2.5	0.0	27.5	83
MC CURDY 80-26	M 2X	96.7	0.0	8.8	0.0	31.7	87
FUNKS G-4195	E 3X	95.9	0.0	7.3	0.0	19.7	77
KELTGEN KS1020	M 2X	95.7	0.0	0.0	0.0	26.7	84
MC CURDY X956	M 2X	95.7	0.0	0.8	0.0	26.0	82
SEEDTEC CX8151	2X	94.9	0.0	5.4	0.0	22.4	81
KELTGEN KS99	E 2X	89.7	0.0	0.8	0.0	20.5	85
TALL CORN SX95	E 2X	89.0	0.0	0.0	0.0	22.7	86
NORTHRUP KING X6169	M 2X	88.4	0.0	0.0	0.0	31.7	89
KELTGEN KS94	E 2X	84.1	0.0	2.4	0.0	22.0	88
Means		107.3		2.4		23.3	
LSD (.05)		11.1		C.V. - % = 8.0			

Table 7. Area D3 2-, 3-, and 4-year yield, moisture and stalk lodging averages of corn hybrids, 1978-1981.

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 PAYMSTR UC 3002	118	112	97	3	2	2	21	22	22
ASGROW RX 511			96			4			21
CARGILL 834			89			2			19
CARGILL 862			81			2			21
CARGILL 872		110	93		5	2		23	22
CENEX 2108			98			4			22
CURRY SC-1421	125	117	100	4	4	4	22	23	23
CURRY SC-1424			108			1			22
DE KALB XL-18			87			2			21
DE KALB XL-25A		104	90		3	4		21	21
FUNKS G-4224	103	99	89	3	3	3	19	20	19
FUNKS G-4256			86			2			19
KALTENBURG KX58		110	92		2	3		23	23
KALTENBURG KX61			97			2			21
KELTGEN KS102			102			2			22
KELTGEN KS94			80			2			20
KELTGEN KS99			82			2			19
LYNKS LX4075			91			2			18
LYNKS LX4100			93			3			22
MC CURDY 4664			92			6			19
MC CURDY 4855			91			3			22
MC CURDY 5225			90			1			22
MC CURDY 5596		106	90		5	7		25	25
NORTHRUP-KING PX39			87			2			22
NORTHRUP-KING PX49	116	109	92	4	3	4	21	21	21
NORTHRUP-KING PX59			90			3			22
O'S GOLD SX6880			98			0			22
P-A-G SX181			91			4			20
P-A-G SX189			89			4			21
PRIDE 4488	112	105	87	1	1	2	22	22	22
SDAES CHECK 10			83			7			19
SDAES CHECK 2			95			3			22
SDAES CHECK 9			85			2			24
SOKOTA TS-60		102	80		1	1		20	19
SOKOTA TS-62A	108	104	89	1	1	0	21	21	21
SOKOTA 420			89			2			18
SOKOTA 450			85			0			18
STAUFFER B606		101	89		1	1		23	23
TOP FARM SX 103	100	97	84	1	1	0	20	21	20
TOP FARM SX 104			105			0			18
TOP FARM SX 99			90			4			19
TROJAN TXS 102	118	112	100	3	1	2	22	23	22
WESTERN KX-52			90			2			23

Table 8. 1981 Corn Performance Trial, Area D1, John Heaton Farm, Gary

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
KELTGEN KS1C2C	M 2X	128.2	0.0	1.5	0.C	20.6	2
ASGROW RX511	M 2X	127.7	0.0	2.9	C.0	19.4	1
CARGILL 872	M 2X	124.8	0.0	9.8	0.0	19.7	5
CENEX 2119	E 2X	123.7	C.0	12.6	0.0	16.4	4
LYNKS LX4075	E 2X	122.8	C.0	1.4	0.0	17.3	3
ACCO PAYMSTR UC3C02	M 2X	119.6	C.C	1.4	0.C	20.C	8
ACCC PAYMSTR UC2990	M 2X	119.3	0.C	2.9	0.C	19.1	9
KELTGEN KS104	M 2X	118.8	0.C	2.1	0.0	18.4	7
LYNKS LX4210	M 2X	118.7	0.C	2.2	C.C	20.0	11
KELTGEN KS95	E 2X	118.3	0.C	0.0	0.C	17.8	6
PRIDE 3322	E 2X	118.3	0.C	4.0	C.C	18.1	10
DE KALB XL-36	M 2X	116.4	0.0	4.6	0.0	20.1	16
ACCO PAYMSTR UC2951	M 2X	115.3	0.C	1.5	C.0	17.9	12
DE KALB XL-25A	M 2X	114.2	0.0	1.4	0.C	18.5	15
SEEDTEC CX8152	2X	113.9	0.0	2.1	0.0	16.8	13
TROJAN T950	E 2X	113.7	0.0	C.7	C.0	17.3	14
TOP FARM SX99	M 2X	113.1	0.C	3.4	C.0	17.7	18
KALTENBURG KX44	M 2X	112.8	C.0	0.0	0.0	17.9	17
SEEDTEC CX8154	M 2X	112.5	0.0	1.4	0.0	18.0	19
WESTERN KX35	M 2X	111.7	0.0	1.4	0.0	19.4	21
CS GOLD 688C	M 2X	11C.6	0.C	2.1	0.0	18.1	22
PAG SX181	E 2X	109.8	0.0	2.1	0.0	18.7	24
ASGROW RX40	E 2X	109.6	0.0	3.4	0.C	15.9	20
TOP FARM SX104	M 2X	109.2	0.0	C.8	0.C	17.7	23
WESTERN KX52	M 2X	108.8	0.0	3.0	0.0	20.8	28
LYNKS LX4127	M 2X	108.6	C.C	2.1	0.0	19.5	26
PAG SX189	E 2X	108.4	C.0	3.8	0.0	20.1	27
LYNKS LX4100	E 2X	108.4	0.C	C.0	0.0	19.0	25
SDAES CHECK 10	M 2X	106.C	0.0	6.7	C.0	17.2	29
TROJAN TXS 99	E 2X	104.4	0.0	5.7	0.C	18.1	31
DE KALB XL-13	E 2X	102.9	0.0	1C.7	C.C	16.2	32
KELTGEN KS96	E 2X	102.5	0.0	0.8	0.0	17.7	30
SEEDTEC CX8150	M 2X	102.2	0.0	5.7	0.0	18.3	34
CARGILL 862	E 2X	101.C	0.0	4.9	0.0	18.0	36
SEEDTEC CX8151	2X	100.9	0.0	5.3	C.C	18.2	37
TOP FARM SX103	M 2X	100.7	0.0	4.3	0.0	17.5	35
SDAES CHECK 2	M 2X	100.5	0.0	1.6	0.0	20.1	40
KALTENBURG KX46	M 2X	100.4	0.0	4.7	0.0	16.3	33
CARGILL 834	E 2X	99.1	0.0	1.4	0.0	18.1	38
PRIDE 2222	E 2X	97.1	0.C	2.2	C.0	17.4	42
CS GOLD 2330	M 2X	96.8	0.0	0.8	0.0	17.5	41
CENEX 2093	E 2X	96.6	0.0	1.4	0.0	15.7	39
KELTGEN KS94	E 2X	95.6	0.0	C.8	0.0	19.1	44
DE KALB XL-28	M 2X	95.4	0.0	2.9	0.0	19.2	45
LYNKS LX4040	E 2X	94.6	0.0	4.9	0.0	16.2	43
ASGROW RX355	E 3X	92.6	0.C	9.7	0.0	15.8	48
KELTGEN KS99	E 2X	92.0	0.0	1.6	0.0	17.5	47
TOP FARM SX98	E 2X	9C.9	0.0	C.0	0.0	15.9	46
SDAES CHECK 11	E 2X	89.8	C.0	1.9	0.0	16.0	49
DE KALB XL-18	M 2X	88.4	0.0	1.6	0.0	18.7	50
PRIDE 1169	E 2X	83.2	0.0	9.6	0.0	15.8	51
CENEX 3094	E 3X	80.4	0.0	2.3	0.0	15.7	52
SEEDTEC CX8153	2X	79.C	0.0	4.5	0.0	15.5	53
Means		106.2		3.2		18.0	
LSD (.05)		21.5		C.V. - % = 15.4			

Table 9. 1981 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-1424	M 2X	76.8	0.0	2.3	0.0	17.1	1
KELTGEN KS104	M 2X	75.0	0.0	2.5	0.0	17.1	2
KELTGEN KS102	M 2X	73.3	0.0	8.7	0.0	20.9	7
CURTIS 460	E 2X	72.8	0.0	4.9	0.0	17.4	3
CURRY SC-1422	M 2X	71.7	0.8	3.1	0.0	20.2	8
CARGILL 426	E 2X	71.4	0.0	4.8	0.0	16.6	4
DE KALB XL-28	M 2X	71.2	0.0	3.1	0.0	18.4	5
CURRY SC-142C	E 2X	71.0	0.0	4.3	0.0	17.8	6
PAG SX181	E 2X	69.4	0.0	5.0	0.0	16.1	9
CENEX 3103	M 3X	68.6	0.8	9.6	0.0	16.2	11
NORTHRUP KING PX49	M 2X	68.4	0.8	5.5	0.0	19.6	13
CURRY SC-1455	M 2X	68.2	0.0	2.4	0.0	20.2	12
WESTERN KX-52	M 2X	67.6	0.0	4.8	0.0	20.2	19
PAG SX157	E 2X	67.3	0.8	4.7	0.0	14.5	10
DE KALB XL-36	M 2X	66.7	0.8	3.2	0.0	20.0	22
CURRY SC-1421	E 2X	66.6	0.0	8.0	0.0	21.2	26
ASGROW RX40	E 2X	66.5	0.0	11.0	0.0	14.5	14
ACCO PAYMSTR UC2990	M 2X	66.2	0.0	5.4	0.0	17.6	21
ASGROW RX511	M 2X	65.6	0.0	1.7	0.0	17.2	18
TROJAN T950	E 2X	65.2	0.0	5.8	0.0	14.8	17
TOP FARM SX104	M 2X	65.1	0.0	4.8	0.0	14.6	15
FUNKS G-4315	M M2X	65.0	0.0	1.6	0.0	15.7	16
FUNKS G-4256	M 3X	64.8	0.0	2.3	0.0	17.0	23
PRIDE 5578	M 2X	64.6	0.8	7.1	0.0	19.1	28
TOP FARM SX104A	M 2X	64.5	0.0	10.4	0.0	17.7	29
KELTGEN KS1020	M 2X	64.4	0.0	3.2	0.0	18.7	24
KELTGEN KS101	M 2X	64.1	0.0	2.4	0.0	14.7	20
NORTHRUP KING PX9288	E 2X	63.3	0.0	5.8	0.0	15.9	27
CENEX 2119	E 2X	62.9	0.0	4.8	0.0	15.3	25
WESTERN KX-55	M 2X	62.7	0.0	8.5	0.0	20.9	35
TROJAN TXS 99	E 2X	62.5	0.0	12.2	0.0	16.2	32
DE KALB XL-55A	M 2X	62.3	0.0	22.8	0.0	22.6	44
CARGILL 862	E 2X	62.3	0.0	4.7	0.0	17.7	31
TOP FARM SX99	M 2X	62.2	0.0	7.9	0.0	15.2	30
DE KALB XL-18	M 2X	60.9	0.0	3.1	0.0	19.0	34
SDAES CHECK 4	M 2X	59.1	0.0	4.0	0.0	17.3	36
SDAES CHECK 10	M 2X	59.2	0.0	5.0	0.0	14.7	33
PRIDE 4480	M 2X	58.9	0.0	4.0	0.0	17.8	37
PAG SX189	E 2X	58.0	0.0	5.3	0.0	16.8	39
FUNKS G-4195	E 3X	57.4	0.0	7.4	0.0	15.3	40
CARGILL 834	E 2X	57.3	0.0	2.5	0.0	16.2	38
PRIDE 3322	E 2X	55.6	0.0	7.8	0.0	15.8	43
SIGCO I90	E 2X	55.6	0.0	1.6	0.0	15.7	41
SDAES CHECK 11	E 2X	55.3	0.0	7.4	0.0	14.6	42
SIGCO I92	E 2X	54.1	0.0	11.3	0.0	14.8	46
ASGROW RX355	E 3X	54.1	0.0	7.2	0.0	14.4	45
DE KALB XL-25A	M 2X	53.9	0.0	11.0	0.0	17.0	48
CENEX 3094	E 3X	52.2	0.0	5.1	0.0	14.2	47
FONTANELLE 611	L 2X	51.4	0.0	3.1	0.0	30.3	50
FUNKS G-4085	E 3X	49.0	0.0	8.6	0.0	14.5	49
Means		63.5		5.9		17.4	
LSD (.05)		12.0		C.V. - % = 8.6			

Table 10. Area D1 2-, 3-, and 4-year yield, moisture and stalk lodging averages of corn hybrids, 1978-1981.

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 PAYMSTR UC 2951	93	92	86	3	3	3	23	22	18
ACCO PAYMSTR UC 3002		95	91		5	6		22	18
ASGROW RX 40		99	95		3	3		19	15
ASGROW RX 511			98			3			17
CARGILL 834			86			3			16
CENEX 2093			90			3			14
CENEX 2119		112	105		10	10		20	15
DE KALB XL-13			81			8			15
DE KALB XL-25A			100			1			17
KELTGEN KS94			84			2			17
KELTGEN KS99			92			5			16
LYNKS LX4075			88			2			15
LYNKS LX4100			89			5			17
P-A-G SX181			94			5			17
P-A-G SX189			95			4			18
SDAES CHECK 10			90			12			16
SDAES CHECK 11			85			4			14
SDAES CHECK 2			85			3			18
TOP FARM SX1C3			94			4			16
TOP FARM SX98			86			5			14
TOP FARM SX99			102			5			16
TROJAN TXS 99		104	98		7	9		20	16
WESTERN KX-35		101	91		3	3		21	18

Table 11. Area C1(dryland) 2-, 3-, and 4-year yield, moisture and stalk lodging averages of corn hybrids, 1978-1981.

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 40			75			7			16
ASGROW RX 511			72			2			19
CARGILL 834			65			3			18
CARGILL 862			72			4			19
CURRY SC-1424		86	83		4	3		19	20
CURRY SC-1455			81			2			22
DE KALB XL-18			66			2			19
DE KALB XL-25A		69	65		6	6		19	19
FUNKS G-4195			58			5			16
FUNKS G-4256			70			2			17
KELTGEN KS102			80			6			21
NORTHRUP-KING PX49	89	86	77	5	7	6	20	21	21
P-A-G SX181			70			4			17
P-A-G SX189			68			3			18
PFIZ-GEN TROJAN TXS9			64			8			17
PRIDE 4488	80	78	68	1	2	3	18	19	19
PRIDE 5578			72			7			20
SDAES CHECK 10			66			3			16
SDAES CHECK 11			55			4			15
SDAES CHECK 4		71	64		4	3		19	18
SIOUX 190			61			3			16
TOP FARM SX1C4			68			4			16
WESTERN KX-52			68			5			21
WESTERN KX-55	84	83	72	5	7	7	21	21	21

Table 12. 1981 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
TOP FARM SX104A	M 2X	143.2	0.0	2.2	0.0	21.9	1
KELTGEN KS104	M 2X	139.3	0.0	1.7	0.0	22.0	2
TROJAN T1000	M 2X	139.2	0.0	2.9	0.0	22.2	3
CURRY SC-1455	M 2X	135.7	0.0	0.9	0.0	29.6	15
CURRY SC-1422	M 2X	135.5	0.0	1.4	0.0	24.6	9
ACCO PAYMSTR UC2990	M 2X	135.3	0.0	2.1	0.0	21.6	5
KELTGEN KS95	E 2X	134.9	0.0	0.6	0.0	19.8	4
CURRY SC-1424	M 2X	134.7	0.0	0.0	0.0	23.5	6
CURRY SC-1420	E 2X	134.1	0.0	2.9	0.0	22.3	7
ASGROW RX511	M 2X	133.5	0.0	10.9	0.0	20.4	11
KELTGEN KS107	M 2X	132.6	0.0	2.8	0.0	21.6	10
OS GOLD 6660	M 2X	131.8	0.0	1.5	0.0	22.3	12
MC CURDY 4855	M 2X	130.5	0.0	3.7	0.0	22.1	13
PAG SX397	M 2X	129.9	0.0	4.6	0.0	25.2	19
KELTGEN KS1020	M 2X	129.5	0.6	0.0	0.0	26.0	18
TOP FARM SX104	M 2X	128.6	0.0	0.9	0.0	18.0	8
CENEX 2108	M 2X	128.0	0.0	0.9	0.0	20.9	14
CIRCLE SEED CS-203	M 2X	127.8	0.0	0.3	0.0	22.8	16
WESTERN KX55	M 2X	124.9	0.0	1.9	0.0	24.9	23
MC CURDY X956	M 2X	123.4	0.0	0.3	0.0	24.6	25
KELTGEN KS102	M 2X	123.2	0.0	1.7	0.0	24.5	28
CIRCLE SEED CS-202	M 2X	121.6	0.0	1.0	0.0	17.8	17
NORTHRUP KING PX49	M 2X	121.1	0.0	3.8	0.0	21.5	27
TROJAN TXS 102	M 2X	120.8	0.0	1.2	0.0	23.6	35
CS GOLD 233C	M 2X	120.4	0.0	2.2	0.0	18.2	21
MC CURDY 4664	E 2X	120.3	0.6	2.1	0.0	17.8	20
CENEX 2119	E 2X	119.5	0.0	6.3	0.0	16.8	22
DE KALB XL-25A	M 2X	119.5	0.3	1.2	0.0	20.5	24
SDAES CHECK 10	M 2X	119.0	0.3	5.9	0.0	19.3	29
SDAES CHECK 2	M 2X	118.8	0.0	0.9	0.0	20.3	26
CARGILL 436	M 3X	118.5	0.0	1.4	0.0	22.0	36
CARGILL 838	E 2X	118.3	0.0	1.8	0.0	20.4	31
CARGILL 426	E 3X	118.1	0.0	2.0	0.0	20.3	32
CURTIS 460	E 2X	118.0	0.0	1.4	0.0	22.7	38
DE KALB XL-36	M 2X	117.3	0.0	0.9	0.0	24.0	41
ACCO PAYMSTR UC2951	M 2X	117.2	0.0	1.8	0.0	19.1	30
DE KALB XL-54	M 2X	117.2	0.0	2.3	0.0	30.3	56
WESTERN KX52	M 2X	116.9	0.0	4.7	0.0	24.8	45
MC CURDY 37 •	E 2X	116.4	0.0	6.1	0.0	17.5	34
DE KALB XL-28	M 2X	115.6	0.0	0.9	0.0	24.0	42
DE KALB XL-55A	M 2X	115.4	0.0	2.9	0.0	31.0	59
ASGROW RX40	E 2X	115.2	0.0	2.1	0.0	17.7	33
MC CURDY 46	M 2X	115.1	0.9	5.2	0.0	22.9	44
NORTHRUP KING PX39	M 2X	114.7	0.0	4.4	0.0	23.7	47
CARGILL 834	E 2X	114.0	0.0	7.0	0.0	18.3	39
FUNKS G-4224	E M2X	113.6	0.6	3.4	0.0	19.6	40
CENEX 2106	M 2X	113.2	0.0	1.3	0.0	17.6	37
ACCO PAYMSTR UC4660	M 2X	111.4	0.0	1.9	0.0	24.8	53
CS GOLD 940	E 2X	110.8	0.0	9.0	0.0	18.5	49
CARGILL 862	E 2X	110.3	0.0	1.8	0.0	20.6	48
DE KALB XL-18	M 2X	109.3	0.0	0.6	0.0	23.4	54
CIRCLE SEED CS-2502	M 2X	108.8	0.3	5.0	0.0	17.2	46
FUNKS G-4315	M M2X	108.5	0.0	2.0	0.0	19.4	51
PAG SX189	E 2X	108.3	0.0	3.9	0.0	21.3	55
PAG SX181	E 2X	107.6	0.0	1.8	0.0	19.0	52
MC CURDY 4436	E 2X	107.4	0.0	1.8	0.0	16.2	43
PRIDE 2222	E 2X	106.6	0.0	2.5	0.0	17.0	50
PRIDE 3322	E 2X	105.1	0.0	4.3	0.0	19.5	57
NORTHRUP KING PX9288	E 2X	103.1	0.0	0.3	0.0	19.4	58
FONTANELLE 580	L 2X	99.6	0.0	1.8	0.0	44.6	63
PAG SX157	E 2X	99.2	0.0	3.0	0.0	16.1	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
NORTHRUP KING PX37	M 2X	98.9	0.0	5.7	0.0	20.7	61
PRIDE 4488	M 2X	84.8	0.0	7.7	0.0	20.7	62
Means		119.2		2.7		21.8	
LSD (.05)		11.9		C.V. - % = 8.8			

Table 13. Area C1(irrigated) 2-, 3-, and 4-year yield, moisture and stalk lodging averages of corn hybrids, 1978-1981.

	ACRE YIELD, B/A			STK LODGING, PCT			GRAIN MOIST, PCT		
BRAND AND VARIETY	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR	4-YR	3-YR	2-YR
ASGROW RX 40	106	103	105	3	3	3	17	18	19
ASGROW RX 511			118			8			23
CARGILL 436			101			3			23
CARGILL 834			97			6			20
CARGILL 838	108	107	114	3	4	4	19	19	20
CARGILL 862			104			4			23
CENEX 2106			103			2			19
CENEX 2108			124			2			22
CENEX 2119		106	111		5	5		18	19
CURRY SC-1422			130			2			26
CURRY SC-1424		121	129		1	1		23	25
CURRY SC-1455			127			3			29
DE KALB XL-18			105			2			24
DE KALB XL-25A		110	115		2	2		22	23
FUNKS G-4224	103	100	113	4	4	4	19	20	20
KELTGEN KS102			122			2			25
MC CURDY 37	109	100	105	6	6	5	18	18	20
MC CURDY 4436			90			4			17
MC CURDY 46	108	103	105	3	3	4	23	23	25
MC CURDY 4664			117			3			19
MC CURDY 4855			118			5			23
NORTHRUP-KING PX 37	102	93	94	3	3	5	21	21	22
NORTHRUP-KING PX 39			108			4			26
NORTHRUP-KING PX 49	112	105	109	4	4	5	21	21	22
P-A-G SX 181			97			3			20
P-A-G SX 189	101	99	102	4	3	4	21	22	23
P-A-G SX 397		117	125		5	5		25	26
PRIDE 4488	98	90	85	4	4	6	23	23	24
SDAES CHECK 10			105			6			20
SDAES CHECK 2		107	110		3	2		22	22
TOP FARM SX 104			109			4			20
TOP FARM SX 104A	114	117	126	3	4	4	20	21	23
TROJAN TXS 102			117			2			25
WESTERN KX-55			119			3			26

Table 14. 1981 Corn Performance Trial, Area C2, William Fijala Farm, Geddes

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
KELTGEN KS104	M 2X	86.5	0.0	4.8	2.4	13.6	2
KALTENBURG KX61	M 2X	86.5	0.0	4.6	1.9	12.3	1
CARGILL 921	M 2X	82.3	2.5	3.3	0.8	15.7	4
ACCO PAYMSTR UC2990	M 2X	80.7	0.0	4.3	0.9	10.4	3
LYNKS LX4100	E 2X	78.6	0.0	6.0	1.2	14.9	5
CARGILL 924	M 2X	77.2	0.0	4.7	0.0	14.7	6
TOP FARM SX104A	M 2X	76.2	0.0	18.7	4.1	9.6	10
CENEX 2157	L 2X	75.2	0.0	6.8	1.7	12.5	11
KALTENBURG KX67	M 2X	74.0	0.0	1.9	1.9	11.7	9
ASGROW KX40	E 2X	72.9	2.4	6.3	0.0	7.3	8
ASGROW RX511	M 2X	72.8	0.0	12.7	1.8	11.0	13
MIGRO HP-470	L 2X	72.8	7.6	3.4	0.8	17.5	20
SDAES CHECK 10	M 2X	72.4	8.0	8.0	5.3	5.7	7
TALL CORN SX113	M 2X	72.2	4.1	3.3	0.8	15.7	18
CURTIS 46C	E 2X	72.2	0.0	12.6	2.5	12.3	19
NORTHRUP KING X6169	M 2X	71.7	0.0	3.4	0.0	12.7	14
MIGRO M-2022X	E 2X	71.5	0.0	6.3	1.6	16.4	21
CENEX 3103	M 3X	71.3	4.7	10.3	1.9	7.2	12
KALTENBURG KX68	M 2X	71.0	0.0	2.9	3.9	12.1	16
CENEX 2108	M 2X	70.6	0.0	32.3	0.0	12.0	30
GREEN ACRES 3000	M 4X	70.3	0.0	10.7	0.8	15.1	24
KELTGEN KS1020	M 2X	70.2	5.6	0.8	2.4	11.2	15
WILSON 1600	M 2X	69.3	1.7	5.9	3.4	18.2	25
NORTHRUP KING PX69A	L M2X	69.1	0.0	9.8	1.6	16.5	26
TOP FARM SX104	M 2X	68.6	0.0	9.8	1.6	5.6	17
WESTERN KX52	M 2X	68.1	1.9	3.8	8.6	12.9	23
GREEN ACRES 3047	L 4X	67.7	6.3	15.2	1.8	19.8	35
PRIDE 6611	L 2X	67.1	0.0	3.5	0.9	10.2	22
WILSON 1500	M 2X	66.2	2.6	35.1	0.0	9.0	38
PRIDE 6678	L 2X	65.4	0.0	10.6	0.8	19.1	43
ACCO PAYMSTR XS479C	M 2X	65.2	0.0	1.0	0.0	13.0	28
DE KALB XL-32A	M 2X	64.9	0.0	1.8	2.7	13.7	31
TROJAN T1058	M 2X	64.8	3.9	0.0	0.0	12.5	27
LYNKS LX4210	M 2X	64.3	0.0	3.6	0.0	11.0	29
CURTIS 530	M 2X	64.3	0.0	9.1	0.0	17.3	41
PAG SX181	E 2X	63.8	0.0	15.5	1.8	8.4	33
NORTHRUP KING PX59	M 2X	63.6	2.4	6.5	1.6	15.7	40
KELTGEN KS101	M 2X	63.5	9.6	15.8	0.9	6.5	32
LYNKS LX4127	M 2X	63.3	1.7	5.0	1.7	12.9	34
FONTANELLE 435	M 2X	62.8	5.2	0.0	0.0	16.3	37
DE KALB XL-54	M 2X	62.3	3.4	6.9	2.6	19.4	50
WILSON 1600A	M 2X	62.2	0.0	0.0	0.0	19.2	46
TROJAN T1100	L 2X	62.2	0.0	2.8	0.9	17.7	45
PAG SX397	M 2X	62.1	1.7	19.5	1.7	12.4	48
ACCO PAYMSTR UC466C	M 2X	62.1	0.0	4.8	1.6	12.0	35
MIGRO HP-36C	E 2X	61.9	0.0	6.5	0.0	11.4	36
MIGRO SPX-49	L 2X	61.0	0.0	2.4	0.0	22.9	53
GREEN ACRES 835	L 4X	60.9	3.9	7.8	2.3	20.6	54
GREEN ACRES 831	L 4X	60.8	6.5	8.9	0.0	24.5	57
PAG SX249	M 2X	60.8	0.0	15.6	3.3	14.1	52
SDAES CHECK 9	M 2X	60.4	0.9	6.3	0.9	11.6	42
DE KALB XL-36	M 2X	59.3	0.9	2.7	2.7	24.2	56
KELTGEN KS95	M 2X	58.9	0.0	11.8	0.7	9.7	49
FONTANELLE 420	M 2X	58.6	0.0	4.1	1.0	11.9	47
PRIDE 7712	L 2X	56.7	6.5	0.8	4.0	26.3	59
MIGRO HP-277	E 2X	56.3	0.0	1.0	4.1	7.0	44
DE KALB XL-55A	M 2X	56.0	0.0	28.8	1.0	19.1	61
MIGRO HP-44	L 2X	54.2	15.1	0.8	2.5	25.0	60
SDAES CHECK 11	E 2X	53.2	8.8	0.9	0.0	5.5	51
TALL CORN SX115	L 2X	53.0	3.6	0.0	0.9	27.5	62
LYNKS LX4075	E 2X	52.3	0.0	6.9	2.3	7.0	55

Table 14. (continued)

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
SDAES CHECK 4	M 2X	50.0	13.2	0.9	0.9	8.8	58
GREEN ACRES 824	L 4X	48.8	0.0	13.4	0.0	24.4	63
Means		66.1		7.5		14.7	
LSD (.05)		12.6		C.V. - % = 9.1			

Table 15. Area C2 2-, 3-, and 4-year yield, moisture and stalk lodging averages of corn hybrids, 1978-1981.

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 PAYMSTR UC 4660			41			3			19
ASGROW RX 40		50	45		4	4		13	14
ASGROW RX 511			48			7			17
CARGILL 924		51	46		3	3		25	24
CENEX 2108			44			22			18
CENEX 2157		53	46		5	6		16	19
DE-KALB XL-32A		51	42		1	1		20	19
FONTANELLE 420			39			2			19
GREEN ACRES 3000			50			7			20
KALTENBURG KX61			52			4			19
KALTENBURG KX68			47			2			17
LYNKS LX4100			46			4			21
NORTHRUP-KING PX 59			49			4			23
NORTHRUP-KING PX69A		54	51		4	6		23	24
SDAES CHECK 10			43			4			13
SDAES CHECK 11			42			1			10
SDAES CHECK 4			33			1			15
SDAES CHECK 9			42			4			17
TOP FARM SX 104			49			5			13
TOP FARM SX 104A		56	47		6	9		18	17
WESTERN KX-52			62			3			18

Table 16. 1981 Corn Performance Trial, Area E, Southeast Experiment Farm, Beresford

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
PAG SX351	L 2X	151.5	0.0	1.2	0.0	21.1	1
MIGRO HP-470	L 2X	145.1	0.0	2.3	0.0	18.4	2
SOKOTA TS-75	L 2X	144.6	0.0	1.1	0.0	18.9	3
CARGILL 967	L 2X	142.7	0.0	1.2	0.0	21.1	7
WILSON 1600	M 2X	142.6	0.0	7.3	0.0	17.7	4
MC CURDY 6555	M 2X	142.1	0.0	3.4	0.0	19.3	6
MIGRO HP-44	L 2X	141.5	0.0	3.4	0.0	19.7	8
CURRY SC-1455	M 2X	141.2	0.0	2.4	0.0	18.7	5
CS GOLD 5500A	L 2X	140.4	0.0	1.2	0.0	20.8	10
PAG SX333	L 2X	140.4	0.0	0.6	0.0	20.5	9
CS GOLD 6882	L 2X	138.4	0.0	1.1	0.0	19.2	11
KELTGEN KS112	L 2X	138.2	0.0	4.0	0.0	18.7	12
ASGROW RX777	L 2X	138.2	0.0	8.0	0.0	19.6	16
TALL CORN SX113	M 2X	137.3	0.0	1.7	0.0	19.0	13
DE KALB XL-55A	M 2X	137.1	0.0	7.4	0.0	18.9	17
CURTIS 601	L 2X	136.4	0.0	1.8	0.0	20.7	19
NORTHRUP KING PX74	L 2X	136.1	0.0	3.4	0.0	20.0	20
CARGILL 921	M 2X	135.9	0.0	5.2	0.0	19.5	21
TROJAN T1100	L 2X	135.5	0.0	3.0	0.0	18.9	15
SOKOTA 660	M 2X	135.1	0.0	6.4	0.0	17.5	18
MC CURDY 6262	L 2X	134.7	0.0	11.2	0.0	20.4	35
DE KALB XL-67	L 2X	134.4	0.0	5.2	0.0	20.2	27
KALTENBURG KX 61	M 2X	133.9	0.0	4.0	0.0	16.6	14
WESTERN KX-70	L 2X	133.7	0.0	6.8	0.0	21.1	34
KALTENBURG KX 73	L 2X	132.7	0.0	0.0	0.0	19.3	22
FUNKS G-4435	L M2X	131.6	0.0	4.5	0.0	19.6	32
CURRY SC-1424	M 2X	131.4	0.0	3.2	0.0	17.3	23
WILSON 1600A	M 2X	131.4	0.0	6.3	0.0	18.7	30
MIGRO HP-401	M 2X	130.9	0.0	1.7	0.0	17.6	24
ACCO PAYMSTR UC2990	M 2X	130.5	0.0	4.6	0.0	16.7	25
DE KALB XL-72A	L 2X	130.4	0.0	0.0	0.0	22.4	41
MIGRO M-2022X	E 2X	129.9	0.0	3.0	0.0	18.5	28
KELTGEN KS114	L 2X	129.9	0.0	4.0	0.0	19.5	39
MC CURDY 6475	M 2X	129.8	0.0	2.9	0.0	19.7	37
MC CURDY 84	L 2X	129.7	0.0	7.5	0.0	20.3	46
KELTGEN KS115	L 2X	129.6	0.0	1.8	0.0	21.1	42
DE KALB XL-32A	M 2X	129.5	0.0	2.3	0.0	16.8	26
CENEX 2114	L 2X	129.0	0.0	0.0	0.0	18.9	31
FUNKS G-4522	L M2X	129.0	0.0	3.6	0.0	22.2	52
CURRY SC-1462	M 2X	128.8	0.0	17.0	0.0	18.1	56
CURRY SC-150	L 2X	128.8	0.0	1.2	0.0	21.1	44
ACCO PAYMSTR X94790	M 2X	128.7	0.0	2.5	0.0	17.6	29
SDAES CHECK 1	L 2X	128.4	0.0	0.6	0.0	21.0	45
CURRY SC-1422	M 2X	128.0	0.0	15.8	0.0	17.3	54
LYNKS LX4210	M 2X	127.7	0.0	2.0	0.0	17.4	33
KELTGEN KS106	L 2X	127.7	0.0	9.5	0.0	16.7	43
TROJAN T1058	M 2X	126.8	0.0	1.2	0.0	17.3	36
CURTIS 530	M 2X	126.4	0.0	5.0	0.0	18.6	48
FUNKS G-4323	M M2X	126.3	0.0	6.3	0.0	15.9	40
KALTENBURG KX 67	M 2X	126.3	0.0	0.7	0.0	17.4	38
MC CURDY 5596	M 2X	126.3	0.0	22.9	0.0	17.5	67
MC CURDY 60	L 2X	125.6	0.0	3.5	0.0	18.7	49
PAG SX249	M 2X	125.6	0.0	6.9	0.0	17.0	47
CENEX 2157	L 2X	125.3	0.0	19.0	0.0	16.9	64
CARGILL 872	M 2X	124.9	0.0	8.1	0.0	16.6	50
NORTHRUP KING PX59	M 2X	124.9	0.0	7.9	0.0	17.7	55
CARGILL 924	M 2X	124.2	0.0	5.7	0.0	20.3	62
PRIDE 4488	M 2X	124.0	0.0	6.7	0.0	16.3	51
NORTHRUP KING X6169	L 2X	123.6	0.0	5.2	0.0	16.8	53
NORTHRUP KING PX5573	L 2X	123.0	0.0	1.7	0.0	22.3	66
WILSON 1500	M 2X	122.9	0.0	11.2	0.0	16.9	60

Table 16. (continued)

BRAND AND VARIETY	TYPE AND CROSS	YIELD B/A	PCT ROOT LODGED	PCT STALK LODGED	PCT EARS DROPPED	PERCENT MOISTURE	PERFORMANCE SCORE RATING
CENEX 2110	L 2X	121.5	0.0	6.2	0.0	17.4	59
LYNKS LX4305	L 2X	121.4	0.0	1.9	0.0	18.1	57
KELTGEN KS107	L 2X	121.2	0.0	6.8	0.0	16.6	58
PRIDE 5592	M 2X	120.8	0.0	4.1	0.0	17.6	61
GREEN ACRES 824	L 4X	119.9	0.0	11.6	0.0	22.5	75
ACCO PAYMSTR UC466C	M 2X	119.3	0.0	5.4	0.0	15.9	63
LYNKS LX4100	E 2X	119.0	0.0	4.2	0.0	16.9	65
SOKOTA TS-62A	M 2X	117.8	0.0	9.1	0.0	16.2	68
PRIDE 6678	L 2X	117.1	0.0	7.0	0.0	18.2	72
MIGRO HP-360	E 2X	116.9	0.0	4.6	0.0	17.2	69
FUNKS G-4315	M M2X	115.6	0.0	6.4	0.0	16.0	70
SCAES CHECK 9	M 2X	115.1	0.0	7.4	0.0	16.9	73
LYNKS LX4075	E 2X	114.9	0.0	5.5	0.0	15.7	71
PAG SX397	M 2X	114.7	0.0	11.0	0.0	17.8	74
GREEN ACRES 831	L 4X	113.8	0.0	4.6	0.0	22.9	76
GREEN ACRES 835	L 4X	106.4	0.0	10.7	0.0	21.8	79
WESTERN KX-66	M 2X	105.8	0.0	3.2	0.0	20.0	78
MIGRO HP-277	E 2X	104.2	0.0	6.0	0.0	16.3	77
WESTERN KX-52	M 2X	97.9	0.0	6.5	0.0	18.2	81
TALL CORN SX110	M 2X	97.1	0.0	3.7	0.0	18.1	80
SCAES CHECK 2	M 2X	94.7	0.0	12.1	0.0	15.4	82
Means		127.3		5.3		18.6	
LSD (.05)		18.6		C.V. - % =		10.5	

Table 17. Listing of Hybrid Corn Entries and the Tables where the results appear.

Company & Brand	Variety	Tables
ACCO Paymaster Seeds	UC 2951	6,8,10,12
P. O. Box 307	UC 2990	6,8,9,12,14,16
Belmond, IA 50421	UC 3002	6,7,8,10
"ACCO Paymaster"	UC 4660	12,14,15,16
	X 94790	14,16
Asgrow Seed Company	RX 40	8,9,10,11,12,13,14,15
7000 Portage Road	RX 355	8,9
Kalamazoo, MI 49001	RX 511	6,7,8,9,10,11,12,13,14,15
"Asgrow"	RX 577	16
Cargill Seeds	426	9,12
P. O. Box 5645	436	12,13
Minneapolis, MN 55440	834	6,7,8,9,10,11,12,13
"Cargill"	838	12,13
	862	6,7,8,9,11,12,13
	872	6,7,8,16
	921	14,16
	924	14,15,16
	967	16
Cenex Seeds	2093	8,10
P. O. Box 43089	2106	12,13
St. Paul, MN 55164	2108	6,7,12,13,14,15
"Cenex"	2110	16
	2114	16
	2119	8,9,10,12,13
	2157	6,14,15,16
	3094	8,9
	3103	6,9,14
Circle Seed Hybrids	CS-202	12
P. O. Box 45	CS-203	12
Albion, NB 68620	CS-2052	12
"Pivot Power"		
Clay Co. Seed Co.	460	6,9,12,14
Vermillion, SD 57069	530	14,16
"Curtis"	601	16
Curry Seed Co.	SC-150	16
P. O. Box 517	SC-1420	6,9,12
Elk Point, SD 57025	SC-1421	6,7,9
"Curry"	SC-1422	6,9,12,13,16
	SC-1424	6,7,9,11,12,13,16
	SC-1455	9,11,12,13,16
	SC-1462	16
DeKalb Ag Research, Inc.	XL-13	8,10
Sycamore Road	XL-18	6,7,8,9,11,12,13
DeKalb, IL 60115	XL-25A	6,7,8,9,10,11,12,13
"DeKalb"	XL-28	6,8,9,12
	XL-32A	14,15,16
	XL-36	6,8,9,12,14
	XL-54	12,14
	XL-55A	9,12,14,16
	XL-67	16
	XL-72A	16
Fontanelle Hybrids	420	14,15
Nickerson,	435	14
Nebraska 68044	580	12
"Fontanelle"	611	9
Funk Seeds International, Inc.	G-4085	9
P. O. Box 2911	G-4195	6,9,11
Bloomington, IL 61701	G-4224	6,7,12,13
"Funks"	G-4256	6,7,9,11
	G 4315	6,9,12,16
	G-4323	16
	G-4435	16
	G-4522	16
Green Acres	824	14,16
RR #2	831	14,16
Hartington, NB 68739	835	14,16
"Green Acres"	3000	14,16
	3047	14
Kaltenburg Seeds	KX 44	8
RR #2	KX 46	8
Waunakee, WI 53597	KX 58	6,7
"Kaltenburg"	KX 61	6,7,14,15,16
	KX 67	14,16
	KX 68	14,15
	KX 73	16
Keltgen Seed Company	KS 94	6,7,8,10
P. O. Box 143	KS 95	6,8,12,14
Olivia, MN 56277	KS 96	8
"Keltgen"	KS 99	6,7,8,10
	KS 101	9,14
	KS 102	6,7,9,11,12,13
	KS 104	6,8,9,12,14
	KS 106	16
	KS 107	12,16
	KS 112	16
	KS 114	16
	KS 115	6
	KS 1020	6,8,9,12,14
King's Western Seeds, Inc.	KX-35	8,10
205 Wyoming Ave. SW	KX-52	6,7,8,9,11,12,14,15,16
Huron, SD 57350	KX-55	6,9,11,12,13
"Western"	KX-66	16
	KX-70	16
Lynks Seeds	LX 4040	6,8
P. O. Box 637	LX 4075	6,7,8,10,14,16
Marshalltown, IA 50158	LX 4100	6,7,8,10,14,15,16
"Lynks"	LX 4127	6,8,14
	LX 4210	6,8,14,16
	LX 4305	16

Table 17. Continued

Company & Brand	Variety	Tables
McCurdy Seed Co. P. O. Box 66 Fremont, IA 52561 "McCurdy"	37	12,13
	46	12,13
	60	16
	84	16
	4436	12,13
	4664	6,7,12,13
	4855	6,7,12,13
	5225	15,16
	5596	6,7,16
	6262	16
	6475	16
	6555	16
	80-26	6
	X956	6,12
NAPB-Migro P. O. Box 2955 Mission, KS 66201 "Migro"	HP-44	14,16
	SPX-49	14
	HP-201	6
	HP-277	6,14,16
	HP-360	6,14,16
	HP-401	6,16
	HP-470	6,14,16
	M-2022X	6,14,16
Northrup King Co. 4124 Quebec Ave. N New Hope, MN 55427 "NK"	PX 37	12,13
	PX 39	6,7,12,13
	PX 49	6,7,9,10,12,13
	PX 59	6,7,14,15,16
	PX 69A	6,14,15
	PX 74	16
	PX 9288	9,12
	PX 9573	16
	X 6169	6,14,16
O's Gold Seed Co. P. O. Box 460 Parkersburg, IA 50665 "O's Gold"	940	12
	2330	8,12
	5500A	16
	6880	6,7,8,12
	6882	16
P-A-G Seeds P. O. Box 9480 Minneapolis, MN 55440 "P-A-G"	SX 157	9,12
	SX 181	6,7,8,9,10,11,12,13,14
	SX 189	6,7,8,9,10,11,12,13
	SX 249	6,14,16
	SX 333	16
	SX 351	16
	SX 397	12,13,14,16
Pfizer Genetics, Inc. P. O. Box 166 Olivia, MN 56277 "Trojan"	TXS 99	8,9,10,11
	TXS 102	6,7,12,13
	T950	8,9
	T1000	6
	T1058	14,16
	T1100	12,14,16
Pride Company, Inc. P. O. Box 8 Glen Haven, WI 53810 "Pride"	1169	8
	2222	8,12
	3322	6,8,9,12
	4488	6,7,9,11,12,13,16
	5578	9,11
	5592	6,16
	6611	14
	6678	14,16
	7712	14
SeedTec International, Inc. P. O. Box 5522 Fargo, ND 58105 "SeedTec"	CX 8150	6,8
	CX 8151	6,8
	CX 8152	6,8
	CX 8153	8
	CX 8154	6,8
Sigco Research, Inc. P. O. Box 150 Breckenridge, MN 56520	I90	9,11
	I92	9
		6,7
Sokota Hybrid Producers P. O. Box 250 Brookings, SD 57006 "Sokota"	TS-60	6,7,16
	TS-62A	16
	TS-75	6,7
	420	6,7
	450	6,16
	660	
South Dakota Agricultural Experiment Station "SDAES"	Check #1	16
	Check #2	6,7,8,10,12,13,16
	Check #4	9,11,14,15
	Check #9	6,7,14,15,16
	Check #10	6,7,8,9,10,11,12,13,14,15
	Check #11	8,9,10,11,14,15
Stauffer Seeds c/o Blaney Seed Farms Route 4 Madison, WI 53711	B606	6,7
	B606wx	6
	S4402	6
	S4406wx	6
	S5260	6
	S5620	6
Heneke Hybrid Co. P. O. Box 306 Grinnell, IA 50112 "Tall Corn"	SX 95	6
	SX 97	6
	SX 104	6
	SX 110	16
	SX 113	14,16
	SX 115	14
Top Farm Hybrids P. O. Box 850 Cokato, MN 55321 "Top Farm"	SX 98	8,10
	SX 99	6,7,8,9,10
	SX 103	6,7,8,10
	SX 104	6,7,8,9,11,12,13,14,15
	SX 104A	6,9,12,13,14,15
Wilson Hybrids P. O. Box 391 Harlan, IA 51537 "Wilson"	1500	14,16
	1600	14,16
	1600A	14,16