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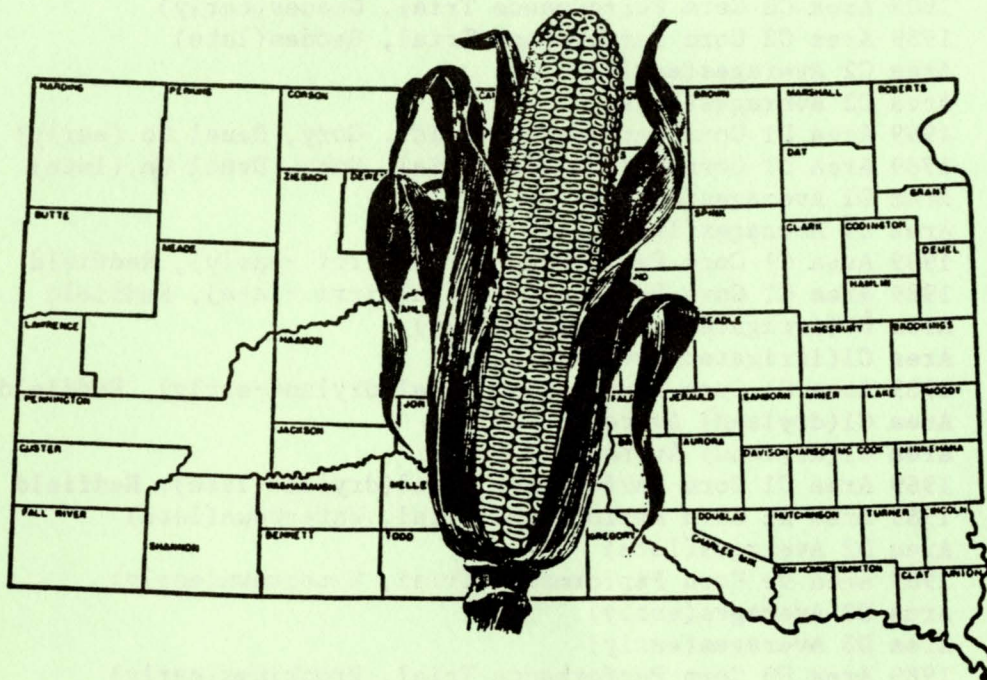
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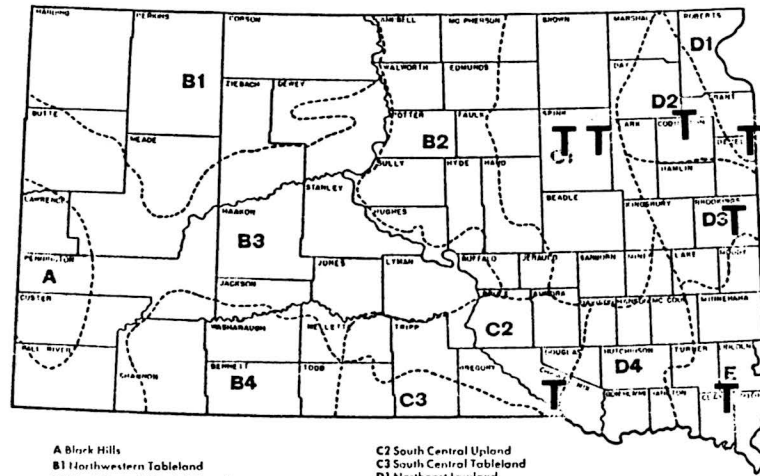
1989 SOUTH DAKOTA CORN PERFORMANCE TRIALS

PLANT SCIENCE DEPARTMENT
AGRICULTURAL EXPERIMENT STATION
SOUTH DAKOTA STATE UNIVERSITY

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CORN TRIAL SITES



CROP ADAPTATION AREAS

- | | |
|--|--|
| <ul style="list-style-type: none"> A Black Hills B1 Northwestern Tableland B2 North Central Glacial Upland B3 Pierre Platin B4 Southwestern Tableland C1 Northern James Valley | <ul style="list-style-type: none"> C2 South Central Upland C3 South Central Tableland D1 Northeast Lowland D2 Northern Prairie Plateau D3 Central Prairie Plateau D4 Southern James Flatland E Southeast Prairie Upland |
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1989 CORN PERFORMANCE TRIALS

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The relative performance of corn hybrids grown under similar environmental conditions in 1989 are evaluated in this report. Information in the accompanying tables includes grain yields in bushels per acre, test weight, moisture percentages of shelled corn at harvest, performance scores, and other related information. Records of the corn hybrids harvested in 1989 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, South Dakota State University.

Location of the 1989 Trials

Trials were located in the crop adaptation areas marked on the accompanying map of South Dakota. An additional trial (Area D2) was begun in 1988 at the Northeast Research Farm in Codington County 15 miles north of Watertown. 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 1989 corn growing season, May-September, are based on U. S. Monthly Climatological Data (NOAA) from a station reasonably near each trial site. The Milbank recording station is closest to the field north of Gary in Deuel County. The Watertown FAA data are used for the NE Farm trials. Stations are located at or near the other trial sites, the Pickstown 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.

Field conditions varied in the eastern portion of South Dakota through most of the growing period. Field work began early and ended early. Limited soil moisture was available for germination and stands were variable from the range desired when seeding rates were determined. Growth was uneven in the early part of the season when above-normal temperatures and limited soil moisture were present. Precipitation was below normal until June in most sections of the state and about normal in most areas in June and July. Timely rains occurred at some sites in August, and September rainfall was near normal. Temperatures were about normal during May. During June the temperatures were 2-3 degrees below normal at all sites. Heat stress occurred during July as temperatures were 2-4 degrees above normal, often accompanied by winds of higher velocities.

The assistance of the following individuals is appreciated: Dwayne Beck, D. Sorenson, B. Lawrensen, Lucian Edler, Kevin Kirby, Delbert Robbins, and Loyal Evjen of the Stations; John Biddle and John Heaton, farmer-cooperators; and Warren Hovland of the Computing Center.

Table 1. Location of Trials, Date of Seeding, and Harvesting of Corn Performance Trials, South Dakota, 1989.

Area	County	Location	Post Office	Dates when	
				Seeded	Harvested
C1-dry	Spink	James Valley Res. Farm, 6E	Redfield	May 5	Oct. 16
C1-irr.	Spink	James Valley Res. Farm, 6E	Redfield	May 5	Oct. 17
C2	Charles Mix	Jack Biddle Farm, 3S, 1E	Geddes	May 9	Oct. 18
D1	Deuel	John Heaton Farm, 1W, 5N	Gary	May 8	Sept. 30
D2	Codington	Northeast Exp. Farm, 15N	Watertown	May 8	Oct. 20
D3	Brookings	Plant Science Farm, 2NE	Brookings	May 3	Oct. 13
E	Clay	Southeast Exp. Farm, 7W, 3S	Beresford	May 2	Oct. 19

Temperatures were below normal along the eastern edge of the state in August and normal to above in other areas. September was cool as mean temperatures varied from 1-5 degrees below normal except at Redfield where above average temperatures were recorded. Frost-nipping temperatures were recorded as early as September 12, the major killing frost occurring on September 23. Most hybrids had reached physiological maturity but some had not, as evidenced by test weights in some trials. Stalk breakage was a problem where harvest operations were delayed, because all row crops were maturing about the same time.

Because the entire growing season was generally favorable all trials were harvested by mid-October. Yields ranged from excellent to poor. Over 95% of farmers' fields were harvested by the end of October.

Corn borers were a problem in some areas though stalk breakage was limited. The irrigated trial at Redfield was irrigated with approximately 2 inches of water each time the tensiometer reached 40 cb at the 18-inch depth.

Hybrid Entry Procedure

Hybrids in the trials were entered by the participating companies and they designate the locations where their entries are to be grown. Beginning in 1986, the entries were placed into early or late trials based upon information supplied by the entering company. The arbitrary breaks at each site were 95

Table 2. Laboratory Analysis, Soil Classification, and Fertilizer Applied to the 1989 Hybrid Corn Performance Trials

Area	Soil Classification	% O.M.	P lb/A	K	pH	Preparation and method	pounds/A		
							N	P	K
C1-dry	Beotia SiCl	3.3	33	600	7.2	No-till wheat stubble	160	40	0
C1-irr.	Beotia SiCl	2.8	42	600	7.5	Disced and ridged(soybeans)	160	40	0
C2	Highmore SiL	2.7	11	320	7.4	Chiseled & disced(wheat)	34	18	0
D1	Forman SiCl	3.2	19	210	6.0	Chiseled & disced(sm.grn.)	55	30	0
D2	Kranzburg SiL	3.1	20	160	6.4	Chiseled & disced(sm.grn.)	60	40	0
D3	Lamour SiL	4.3	25	180	6.1	Plowed and disced(sudan)	80	30	20
E	Egan SiL	3.5	19	330	6.0	Plowed and disced(soybeans)	160	60	40

Table 3. Temperature and Precipitation Data for the 1989 Corn Performance Trials, South Dakota

Location	Type of Data	Months of					Total
		May	June	July	August	Sept.	
Brookings 2 NE	Precip. (inches)	0.78	4.02	6.04	1.52	2.36	14.72
	Temp. (mean)	54.6	63.4	72.4	68.3	57.4	
	Mean Departure	-1.4	-2.2	+1.7	-0.3	-1.3	
	Days 90 F. +	00	01	05	01	00	
	First freeze - September 13						
Centerville 6 SE	Precip. (inches)	1.19	3.20	3.79	1.97	1.61	11.76
	Temp. (mean)	59.3	67.3	76.4	71.7	61.0	
	Mean departure	-1.0	-2.9	+1.5	-1.1	-3.1	
	Days 90 F. +	02	03	13	04	00	
	First freeze - September 23						
Pickstown	Precip. (inches)	0.77	3.07	3.07	1.88	1.89	10.68
	Temp. (mean)	59.6	67.5	78.6	75.2	63.7	
	Mean departure	-0.6	-2.7	+2.3	+0.6	-0.5	
	Days 90 F. +	01	05	18	11	03	
	First freeze - September 23						
Redfield 6 E	Precip. (inches)	1.13	2.04	1.44	1.35	2.87	8.33
	Temp. (mean)	57.5	65.0	75.8	72.5	59.8	
	Mean departure	+0.3	-1.8	+2.7	+1.0	+0.9	
	Days 90 F. +	00	04	16	13	01	
	First freeze - September 12						
Milbank 2 SSW	Precip. (inches)	0.70	1.35	3.69	4.62	1.39	11.75
	Temp. (mean)	57.0	64.9	74.7	69.2	59.6	
	Mean Departure	-0.8	-2.5	+2.2	-1.7	-1.2	
	Days 90 F. +	00	03	13	04	00	
	First freeze - September 13						
Watertown FAA	Precip. (inches)	1.27	1.94	2.39	3.40	1.70	10.70
	Temp. (mean)	56.8	64.6	75.0	70.2	58.6	
	Mean Departure	+1.4	-1.0	+3.8	+0.9	-5.0	
	Days 90 F. +	00	03	13	04	00	
	First freeze - September 13						

days for Areas D1 and D2, 100 days for Areas D3 and C1, and 110 days for Areas C2 and E. A maximum of five entries could be entered by a company, in either the early or late or both trials, at any test site. A fee was charged for each entry in each area and each was allowed to be entered once in each adaptation area. A listing of the firms, with brands and hybrids harvested, is presented in Table 33.

Experimental Procedure

Entries included in each trial were seeded in three replications. Plots of individual hybrids were located at random within each replication. Available space, soil type and variability, and other factors determined plot size and number of replications. The plot size, populations, and related data are presented in Table 4.

Insecticides were not used for corn rootworm control this year. The product used depends upon prior history of the field and insecticide used in the past years. A recommended short-residue preemergence herbicide was banded over the row at seeding at all sites.

All trials were seeded as drilled corn. A 31-cell cone seeder was used for all the plots. These units were mounted above commercial maxi-merge units. Seeding rate was 20% more than the number of plants per plot desired. Seedbeds were generally firm; however, soil moisture was sometimes limited and germination uneven. Stands in most of the trials were near the desired population levels.

Table 4. Field Methods

Area	Table No.	Number of Replications Harvested	Final Population Obtained	Row Number of	Description Width, inches	Length feet
C1-D early	21	3	14,852	2	30	26
C1-D late	24	3	15,166	2	30	26
C1-I early	17	3	26,827	2	30	26
C1-I late	18	3	27,316	2	30	26
C2-early	9	3	15,829	2	30	26
C2-late	10	3	13,717	2	30	26
D1-early	13	3	19,766	2	30	26
D1-late	14	3	19,404	2	30	26
D2-early	27	3	19,593	2	30	26
D2-late	25	3	19,306	2	30	26
D3-early	30	3	19,845	2	30	26
D3-late	31	3	19,832	2	30	26
E-early	5	3	21,541	2	30	26
E-late	7	3	21,863	2	30	26

Measurements of Performance

Yield. The yield reported for each hybrid is the average obtained from the yield weights of all replications, expressed as the 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 differences obtained were caused by variations in environment or were true varietal differences. Some coefficients of variation(CV) were greater than desired, not attributable to any one specific cause, though influenced by interactions of soil variations and heat and moisture stress.

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 lbs/A to kg/ha.)

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

II. Or, assuming a yield of 60.6 B/A from the tables;
Step 1 = $60.6 B/A \times 54 \text{ lb/B} = 3272 \text{ lb/A}$
Step 2 = $3272 \text{ lb/A} \times 1.121 = 3668 \text{ kilograms/hectare}$ or
36.7 quintals/hectare.

Moisture Content. The moisture content of each entry is expressed as the percentage of moisture in the shelled corn at time of harvest. 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 trial entries.

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. Cash grain operators who do not turn livestock into their fields after harvest will receive greater returns when the stalks remain upright so the ears will go through their 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 entries 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:

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

Use of the Tables. South Dakota conditions are generally quite different from those in the midwestern 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 fashion or manner.

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 seeding a new hybrid the acreage should be limited until the hybrid's adaptation to the environment of the particular farm is known.

Table 5. 1989 Corn Performance Trial, Area E(early), SE Farm, Beresford, SD

Brand and Variety	Type and Cross	Yield B/A	Test Weight Lb/B	% Stalk Lodged	Aver. Plants /acre	% Moist	Perfor- mance Score
Betagold 853	M 2X	114.2	61.8	0.0	21780	17.8	2
Fontanelle 4035	E 2X	113.4	62.8	2.6	21780	15.4	1
Kaltenberg K6900	M 2X	109.8	62.7	3.0	22003	15.8	3
Tecnagene DF6905	M 2X	109.4	62.9	1.5	21780	16.0	4
Sigco 1814	L 2X	108.9	61.5	2.7	20775	17.4	5
Supercrost EXP8110	M 2X	106.6	62.0	5.8	21221	17.1	6
Hoegemeyer SX2628	M 2X	105.4	62.6	5.2	21668	17.5	7
DeKalb DK584	M 2X	103.4	62.4	5.2	21445	16.3	11
Golden H'vest X654	M 2X	103.3	61.3	5.2	21445	16.2	12
Curry 1446	M 2X	102.7	63.6	2.6	21780	15.2	9
Northrup King S4590	M 2X	102.4	63.6	2.1	20886	15.6	10
Golden H'vest H2327	M 2X	101.8	62.3	2.1	21668	14.2	8
Betagold Maria	M 2X	101.8	63.6	7.3	21445	16.5	14
AgriPro AP525	M 2X	100.3	62.9	5.2	21333	16.6	16
Tecnagene DF6802	M 2X	100.3	64.0	0.5	21780	15.3	13
Hawkeye SX32	M 2X	99.2	61.9	3.2	20998	16.9	19
Hawkeye SX43	M 2X	99.1	61.8	3.6	21557	17.1	20
Betagold Katrina	M 2X	98.8	62.5	2.1	21557	15.1	15
Kaltenberg K5400	M 2X	98.3	63.5	3.2	20663	14.8	17
Golden H'vest H2404	M 2X	98.3	63.9	1.0	21780	15.8	18
Curry 1464	M 2X	97.7	64.8	0.5	20998	16.5	21
Dahlgren DC-527	M 2X	96.8	64.3	1.5	21668	15.4	22
Kaltenberg K6205	M 2X	96.5	64.0	7.8	21557	16.4	29
Supercrost 4366	M 2X	96.2	61.8	2.1	21110	16.9	27
AgriPro AP424	M 2X	96.1	63.9	3.6	21557	14.2	23
Interstate IS729	L 2X	95.8	65.6	0.5	21892	16.6	26
Terra TR 164E	M 2X	95.6	63.9	1.5	21780	14.7	24
Pioneer 3578	M 2X	95.1	63.3	1.0	22003	15.1	25
Northrup King S5750	M 2X	94.9	63.6	7.8	21445	14.7	30
Top Farm SX1105	M 2X	93.9	64.8	1.6	21557	16.4	33
Northrup King N4545	M 2X	93.6	62.4	1.0	21892	14.6	28
Top Farm SX1103	M 2X	93.3	63.1	1.1	21221	15.6	32
Betagold Hanna	M 2X	92.6	64.2	1.0	21668	15.4	34
DeKalb DK535	M 2X	92.3	57.2	4.2	19881	14.5	35
Pioneer 3615	M 2X	92.2	63.3	0.5	21333	13.9	31
Interstate IS543	M 2X	91.6	63.6	0.5	22115	15.6	36
Hoegemeyer SX2617	M 2X	91.6	63.9	2.6	21780	14.8	37
Crow's 210	M 2X	91.5	62.5	5.1	21780	15.1	40
Asgrow/O'Gold RX578	L 2X	91.5	64.0	4.1	22003	15.2	39
Wilson 1400	M 2X	90.6	63.6	0.5	21221	15.4	38
4-Star 5613	M 2X	88.7	62.1	4.1	21780	15.5	41
Cenex/LOL 451	M 2X	87.4	63.0	2.5	22115	15.7	44
Fontanelle 4030	E 2X	87.3	62.3	0.5	21780	15.5	42
Crow's 442	M 2X	87.0	62.5	5.6	22115	14.4	45
Payco SX872	M 2X	86.9	63.7	5.6	22003	15.8	46
Hyperformer HS-45	E 2X	86.7	63.0	2.6	21780	14.6	43
Hyperformer HS-35	E 2X	85.8	62.7	8.2	21892	14.8	48
Sigco 1701	M 2X	85.2	64.5	2.6	21445	15.4	47

Table 5.(cont) Beresford(early), SD

Terra TR 1040	M	2X	84.8	63.0	3.6	22003	16.6	51
Tecnagene DF6805	M	2X	83.5	63.7	2.1	21668	15.3	50
Pioneer 3475	M	2X	83.4	64.1	4.1	21780	14.9	52
Pfister 1575	M	2X	82.8	63.0	0.5	21668	15.0	49
Terra TR 975	M	2X	82.4	63.1	2.6	21780	15.9	53
Payco 648	M	2X	82.1	63.3	3.2	20775	15.4	54
Garst N6710	M	2X	82.0	61.2	6.0	20551	15.1	55
Asgrow/O'Gold RX626	L	2X	81.4	62.7	4.6	21892	15.1	56
Betagold Karla	M	2X	81.2	64.5	6.6	22115	14.8	57
Hyperformer HS-49	M	2X	78.9	62.3	4.6	21780	18.3	59
Hyperformer HS-25	E	2X	78.5	66.0	2.5	22115	14.3	58
Conti 8680	M	2X	75.5	64.2	3.8	17871	14.4	60
Interstate IS613	L	2X	71.3	63.3	4.6	22003	16.0	61
Means			93.4	63.1	3.2	21520	15.6	
LSD(.05)			18.3		CV -		12.1 %	

Table 6. Area E(early) 1986-1989 Yield, Moisture, and Stalk Lodging Averages of Corn Hybrids, Southeast Experiment Farm, Beresford, SD

Brand and Variety	Acre Yield, B/A			Stk Lodging, %			Grain Moist, %		
	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr
AgriPro AP525			89			3			18
Asgrow/O's Gold RX578		109	77		1	2		15	16
Asgrow/O's Gold RX626		108	77		2	2		15	15
Betagold Hanna		101	78		1	1		14	14
Betagold Karla			74			3			14
Betagold Maria			80			4			17
Curry 1464			80			0			17
DeKalb DK535			79			3			14
Fontanelle 4030		97	74		0	0		14	15
Fontanelle 4035			99			2			17
Hawkeye SX43			77			2			18
Hawkeye SX56			76			2			22
Hoegemeyer SX2617			75			1			15
Hoegemeyer SX2628			91			3			19
Interstate IS543		97	77		0	1		15	15
Interstate IS613		91	67		2	2		16	17
Jacques 6770			78			1			16
Jacques 7770			75			0			19
Jacques 7820			77			1			22
McCurdy 6660			85			1			19
Pioneer 3475	114	95	66	1	2	2	16	14	14
Pioneer 3615		108	81		0	1		14	13
Sigco 1701			72			2			14
Sigco 1814			85			1			18
Supercrost EXP8110			87			3			19
Terra TR1040	111	104	75	1	1	2	17	16	17
Terra TR164E			80			1			14

Table 7. 1989 Corn Performance Trial, Area E(late), SE Farm, Beresford, SD

Brand and Variety	Type and Cross	Yield B/A	Test Weight Lb/B	% Stalk Lodged	Aver. Plants /acre	% Moist	Performance Score
Garst 8532	L 2X	126.0	59.6	0.0	22115	19.4	2
DeKalb DK612	L 2X	125.4	61.8	2.0	22003	17.7	1
Pioneer 3362	L 2X	121.0	63.2	4.5	22115	16.5	3
SeedTec 7529	M 2X	120.6	61.1	1.0	22115	17.7	4
Terra TR1120	L 2X	119.5	59.1	3.1	21780	20.6	7
4-Star 5744	L 2X	117.4	60.6	1.0	21892	17.7	6
Kaltenberg K7400	L 2X	116.0	57.8	1.5	21668	20.8	9
Pioneer 3379	L 2X	116.0	64.1	1.0	22115	16.1	5
Cargill 7877	L 2X	115.6	58.2	9.7	21892	20.6	14
Crow's 669	L 2X	115.2	56.7	3.7	21110	21.8	12
AgriPro AP510	L 2X	115.0	59.9	0.5	21445	20.3	10
Garst 8599	L 2X	112.9	61.2	2.0	22003	14.8	8
Garst 8519	L 2X	112.2	59.8	3.5	22115	19.4	17
Tecnagene DF8812	L 2X	111.6	60.0	2.0	22115	18.8	13
Curry SC1481	L 2X	111.1	60.5	0.0	21668	18.0	11
Top Farm SX1112	L 2X	110.8	60.1	0.5	20886	18.8	15
AgriPro AP595	L 2X	110.8	61.4	2.6	21668	18.1	16
Mc Curdy 6660	L 2X	110.7	60.8	2.0	22003	18.5	19
Cargill 6927	L 2X	109.9	60.8	0.5	21557	18.3	20
Wilson 1640	L 2X	109.8	60.7	0.0	21892	18.0	18
Northrup King S7751	L 2X	108.8	55.9	5.1	22003	21.3	31
Fontanelle 4280	M 2X	108.3	62.1	0.0	21892	16.8	21
Tecnagene DF8911	L 2X	108.2	60.8	9.1	22003	17.5	29
Cargill 6027	L 2X	108.0	63.3	2.1	21780	16.2	22
Hoegemeyer SX2632	L 2X	108.0	59.3	1.0	22115	19.3	27
NC+ 4616	M 2X	107.8	61.7	4.5	22115	17.1	24
Northrup King N6348	L 2X	107.7	61.7	7.7	21780	16.8	28
Kaltenberg K7500	L 2X	107.2	60.9	0.0	22115	17.8	23
Terra TR1125	L 2X	106.9	62.5	2.0	22003	17.7	26
Fontanelle 4435	M 2X	106.8	61.7	3.0	22115	16.7	25
Asgrow/O'Gold RX706	L 2X	106.6	61.7	7.1	22115	17.3	30
Hawkeye SX56	L 2X	105.6	58.1	4.0	22115	21.0	35
Payco SX925	M 2X	105.3	58.7	4.0	22115	20.5	34
Cenex/LOL 571	L 2X	105.0	61.1	4.1	21668	17.6	32
Hyperformer HS-59	L 2X	104.7	58.5	5.2	21557	20.2	36
Mc Curdy 6222	L 2X	102.2	61.3	4.6	22003	18.2	37
Crow's 682	L 2X	101.8	59.5	9.1	22003	18.4	40
Jacques 6770	L 2X	101.6	62.3	1.5	21892	15.2	33
Dahlgren DC-545	L 2X	101.4	57.8	3.1	21892	20.9	42
Cargill 6227	L 2X	101.0	57.2	6.1	19881	17.4	38
Dahlgren DC-541	L 2X	99.6	60.7	2.0	21892	18.7	41
Hoegemeyer SX2673	L 2X	99.5	59.4	13.6	22115	18.8	52
Cargill 8127	L 2X	98.6	60.5	4.0	22115	19.6	45
Jacques 7820	L 2X	97.9	58.8	2.5	22003	20.6	50
S-Brand CB1140	L 2X	97.7	61.1	7.1	22003	17.8	48
Garst N6574	L 2X	97.0	63.8	2.0	22115	14.8	39
S-Brand SS-54A	L 2X	96.5	59.4	4.7	21445	18.3	51
Golden Hr'vst H2486	L 2X	95.1	62.6	4.3	20886	15.4	44
S-Brand SS-57A	L 2X	94.9	62.2	2.6	21557	16.2	46
Curry SC1468	L 2X	94.8	64.1	3.5	22115	14.8	43

Table 7.(cont) Beresford(late), SD

Crow's 488	M	2X	94.7	59.8	13.1	22115	18.5	55
NC+ 5158	L	2X	94.3	58.6	6.3	21221	20.2	53
Pfister 2250	L	2X	93.6	63.4	3.5	22115	14.5	47
Interstate IS729	L	2X	92.8	67.1	0.0	21892	15.4	49
Top Farm SX1109	L	2X	91.6	62.1	6.2	21557	17.5	54
Jacques 7770	L	2X	89.5	60.2	0.5	21892	18.6	56
S-Brand SS-55B	L	2X	88.3	61.4	6.8	21445	17.0	58
Interstate IS613	L	2X	87.5	64.0	4.5	22115	15.4	57
Wilson 1670	L	2X	82.3	60.0	5.1	22003	18.6	59
Means			105.2	60.70	3.7	21829	18.1	
LSD(.05)			18.0			CV -	10.6 %	

Table 8. Area E(late) 1986-1989 Yield, Moisture, and Stalk Lodging Averages of Corn Hybrids, Southeast Experiment Farm, Beresford, SD

Brand and Variety	Acre Yield, B/A			Stk Lodging, %			Grain Moist, %		
	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr
Cargill 6227			88			3			19
Cargill 6927			77			0			19
Cargill 7877			90			5			20
Crow's 488		111	78		5	7		18	19
Dahlgren DC-541			85			1			19
Dahlgren DC-545			76			2			21
Ffontanelle4280	118	99	90	1	1	0	19	18	18
Golden Harvest H2486			67			2			15
Hoegemeyer SX2632		111	84		1	1		19	20
Hoegemeyer SX2673			86			7			22
Interstate IS613		91	67		2	3		16	17
Kaltenberg K7400		109	79		1	1		20	21
Kaltenberg K7500		111	85		1	0		17	18
NC+ 4616			91			2			19
Northrup King N4545			81			1			14
Northrup King N6348			89			4			19
Northrup King S5750			85			4			15
Northrup King S7751	130	114	76	2	2	3	22	21	22
Pfister 2250			71			2			15
S-Brand SS54A			87			3			20
S-Brand SS57A			80			1			18
Terra TR1120		117	77		1	2		20	22
Terra TR1125			81			1			18
Top Farm SX1112			79			0			18
Wilson 1640	132	116	91	1	1	0	19	18	19
Wilson 1670			80			3			20

Table 9. 1989 Corn Performance Trial, Area C2(early), Geddes, SD

Brand and Variety	Type and Cross	Yield B/A	Test Weight Lb/B	% Stalk Lodged	Aver. Plants /acre	% Moist	Performance Score
Dahlgren DC-527	M 2X	134.3	59.9	0.7	17089	17.1	1
Golden Harvest X654	L 2X	129.6	58.6	2.7	16419	17.9	2
Sigco 1701	M 2X	125.1	60.6	1.3	16865	16.6	3
Conti 8650	M 2X	121.9	60.5	2.1	16084	17.0	5
Terning Frontier	M 2X	121.8	61.2	2.1	16307	16.4	4
Tecnagene DF6905	M 2X	120.3	58.0	0.7	16419	18.7	8
AgriPro AP424	L 2X	119.7	61.0	0.7	15972	15.8	6
DeKalb DK584	M 2X	119.6	56.9	9.6	16307	18.8	15
Terra TR975	M 2X	119.5	62.3	1.9	17312	16.2	7
Terra TR1040	M 2X	118.9	59.2	2.1	16084	17.9	10
Golden Harvest H2404	L 2X	118.9	60.7	3.4	16195	16.5	9
Cargill 6127	M 2X	117.7	60.0	1.3	17312	17.2	11
Crow's 442	M 2X	117.0	58.2	2.8	16084	17.1	12
SeedTec ST7344	M 2X	116.0	60.3	2.9	15637	16.8	13
Horizon 4111	M 2X	115.8	59.6	1.4	16419	17.1	14
Tecnagene DF6802	M 2X	114.6	60.6	2.7	16530	17.0	17
Cargill 5157	M 2X	114.3	57.2	2.7	19881	17.0	18
Wilson 1400	M 2X	113.7	56.9	3.6	15637	19.6	21
Northrup King N4545	M 2X	113.3	60.0	3.8	14743	15.2	16
Pioneer 3569	M 2X	112.5	62.4	5.1	15190	16.9	19
Crow's 488	M 2X	110.4	54.4	2.1	15749	20.2	29
Hoegemeyer SX2576	E 2X	110.3	61.9	1.3	17424	16.5	20
Top Farm SX1102	M 2X	110.1	62.3	7.0	15860	15.7	24
Pioneer 3578	L 2X	109.2	62.3	3.3	13403	15.4	22
Horizon 8095	E 2X	108.3	62.7	3.5	16084	14.8	23
Northrup King N5750	M 2X	108.0	58.8	1.6	14408	17.8	28
Top Farm SX1101	M 2X	107.8	62.2	1.3	16977	15.4	25
DeKalb DK535	M 2X	107.8	59.5	1.4	16307	15.8	26
Sigco 1814	L 2X	106.5	56.3	0.7	15302	20.8	33
Top Farm SX1099	E 2X	105.3	60.7	2.0	16530	15.3	30
Pioneer 3615	M 2X	105.2	61.6	0.0	14855	15.2	27
Terra TR164E	M 2X	104.4	60.4	3.7	15078	16.5	32
Hoegemeyer SX2559	M 2X	104.0	63.1	6.6	15190	15.0	31
Dahlgren DC-510	M 2X	97.7	59.3	3.5	16084	16.8	37
SeedTec ST6800	L 2X	97.3	60.8	0.0	13738	17.1	35
Garst 8708	L 2X	97.3	61.2	0.7	15302	16.6	34
Asgrow/O'Gold RX578	L 2X	96.1	59.4	0.0	13403	17.3	38
Conti 8550	M 2X	95.5	61.7	0.7	15972	15.0	36
Pioneer 3475	M 2X	94.0	60.2	3.5	16084	16.8	39
Crow's 210	E 2X	84.4	60.2	0.0	14073	16.2	40

Means

111.1

60.1

2.4

15908

16.8

LSD(.05)

N.S.

CV - 14.6

Table 10. 1989 Corn Performance Trial, Area C2(late), Geddes, SD

Brand and Variety	Type and Cross	Yield B/A	Test Weight Lb/B	% Stalk Lodged	Aver. Plants /acre	% Moist	Performance Score
Garst 8532	M 2X	114.8	55.0	0.0	15637	21.7	2
McCurdy 5222	L 2X	114.8	60.1	8.0	15302	18.0	1
Wilson 1640	L 2X	110.3	54.9	0.0	16419	21.2	3
Pioneer 3362	L 2X	101.9	56.7	0.8	14520	20.8	4
Tecnagene DF6909	L 2X	99.4	58.1	4.2	15972	19.8	6
Hoegemeyer SX2582	M 2X	98.6	57.1	0.7	15972	18.2	5
Top Farm SX1103	M 2X	96.7	59.6	0.7	15525	18.3	7
AgriPro AP595	L 2X	96.0	56.2	2.9	15190	20.7	9
Garst N6715	M 2X	93.8	59.0	1.0	11616	17.3	8
NC+ 5158	L 2X	91.7	54.3	0.0	14297	20.5	10
Tecnagene DF8812	L 2X	90.8	54.2	5.8	15302	21.7	17
Terra TR1120	L 2X	90.3	54.2	0.0	13850	21.1	15
Cargill 6927	L 2X	90.2	56.5	1.5	14855	20.2	14
Garst 8599	M 2X	89.6	57.1	3.9	14185	17.8	12
McCurdy 4925	L 2X	89.2	59.6	1.7	13403	17.3	11
Hoegemeyer SX2617	M 2X	88.4	59.2	1.6	14297	17.6	13
Asgrow RX626	L 2X	86.6	58.3	0.0	15190	17.5	16
DeKalb DK636	L 2X	86.1	56.3	0.0	11839	21.3	18
S-Brand SS-62A	L 2X	85.7	53.4	2.3	14297	21.3	20
Crow's 669	L 2X	85.4	54.1	1.8	12621	20.5	19
Supercrost 4366	L 2X	84.5	56.3	4.8	13961	21.1	22
Garst 8555	M 2X	83.1	58.3	0.0	12174	19.2	21
Wilson 1670	L 2X	82.8	56.0	3.2	13850	20.9	23
Northrup King S7751	L 2X	80.3	54.7	0.8	13738	21.3	25
Tecnagene DF6906	M 2X	79.5	61.6	3.9	11504	17.9	24
Supercrost 4386	M 2X	79.2	55.9	5.4	14520	20.6	27
NC+ 4616	L 2X	78.7	56.1	1.8	12398	19.7	26
Top Farm SX1105	M 2X	76.8	60.7	0.8	13180	19.0	28
S-Brand SS-54A	L 2X	76.5	54.9	2.7	12509	20.3	30
S-Brand CB1140	L 2X	76.4	55.7	2.4	13850	19.9	29
Dahlgren DC-541	L 2X	74.9	54.8	7.0	15972	21.6	31
Cargill 6227	L 2X	71.1	57.2	1.9	19881	19.8	33
Cargill 6027	L 2X	69.0	58.6	0.0	12509	17.5	32
Terra TR1125	L 2X	68.9	56.0	2.9	11504	20.5	34
S-Brand SS-57A	L 2X	64.8	54.6	3.5	12845	20.8	35
AgriPro AP525	L 2X	57.2	57.4	0.0	10499	19.2	36
Crow's 682	L 2X	46.6	50.4	0.0	10276	22.0	37
Means		85.1	56.6	2.1	13931	19.8	
LSD(.05)		28.3			CV -	20.5 %	

Table 11. Area C2(early) 1986-1989 Yield, Moisture, and Stalk Lodging Averages of Corn Hybrids, John Biddle Farm, Geddes, SD

Brand and Variety	Acre Yield, B/A			Stk Lodging, %			Grain Moist, %		
	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr
Asgrow/O'Gold RX578		98	80		0	1		20	16
Cargill 6127	101	103	81	1	1	1	21	21	18
Dahlgren DC-527			92			0			16
Garst 8708			77			0			16
Hoegemeyer SX2559			75			3			14
Horizon 4111	105	110	84	1	0	1	20	21	18
Northrup King N4545			86			2			14
Pioneer 3475	96	92	71	1	1	2	18	19	16
Pioneer 3569		104	79			2		19	15
Pioneer 3615		98	77		0	0		18	16
SeedTec ST6800	96	94	71	0	0	0	20	20	18
SeedTec ST7344			84			1			15
Sigco 1701			88			1			16
Sigco 1814			77			0			20
Terra TR1040			83			2			19
Terra TR164E			77			2			16
Top Farm SX1099	90	90	77	1	1	1	16	16	14
Top Farm SX1101			77			1			14
Top Farm SX1102		99	84		3	4		18	15

Table 12. Area C2(late) 1986-1989 Yield, Moisture, and Stalk Lodging Averages of Corn Hybrids, John Biddle Farm, Geddes, SD

Brand and Variety	Acre Yield, B/A			Stk Lodging, %			Grain Moist, %		
	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr
AgriPro AP525			45			0			20
Asgrow/O'S Gold RX62			71			0			17
Cargill 6227			54			1			19
DeKalb DK636	95	93	70	0	0	0	25	25	22
Garst 8555			67			0			19
Hoegemeyer 2617			73			1			16
NC+ 4616			75			1			20
Northrup King S7751			67			0			23
S-Brand SS54A			54			1			20
S-Brand SS57A			67			2			21
S-Brand SS62A			70			2			21
Supercrost 4386			73			3			20
Tecnagene DF8812			80			3			20
Terra TR1120			65			0			24
Terra TR1125			67			1			20
Top Farm SX1103			78			0			18
Wilson 1640	100	101	84	0	0	0	22	23	19

 Table 13. 1989 Corn Performance Trial, Area D1(early), Deuel Co., SD

Brand and Variety	Type and Cross	Yield B/A	Test Weight Lb/B	% Stalk Lodged	Aver. Plants /acre	% Moist	Performance Score
Pioneer 3751	E 2X	125.4	52.9	0.6	18653	20.9	1
Interstate IS443	E 2X	122.0	54.1	1.1	20105	22.1	5
AgriPro AP148	E 2X	121.3	57.6	0.6	19769	20.2	2
Terning Excell	E 2X	120.1	54.7	0.6	20105	20.4	4
Pioneer 3737	E 2X	119.8	55.0	0.0	19881	20.2	3
Golden Valley 282	M 2X	119.1	57.1	1.7	19434	19.5	6
Dahlgren DC-440	E 2X	119.0	56.1	1.1	20105	19.7	7
Conti 8455	M 2X	118.9	51.8	1.1	19993	23.5	14
Betagold Ingrid	E 2X	118.6	57.1	0.0	20105	19.7	8
Supercrost 1637	E 2X	117.9	55.6	0.6	20105	20.0	9
Tecnagene DF4898	E 2X	117.7	49.3	0.6	20105	24.1	20
Top Farm SX1195	E 2X	117.3	55.5	0.6	20105	19.6	10
Terning Select	E 2X	117.0	59.7	1.1	19881	19.9	11
Phoenix PH2391	E 2X	115.7	55.8	2.3	19769	19.6	12
Sigco 1799	E 2X	115.6	52.5	1.7	19993	22.8	23
Cargill 3327	E 2X	115.6	53.5	0.0	19211	22.3	21
Horizon 8095	E 2X	115.5	54.9	0.6	19881	20.4	15
Cargill 3027	E 2X	115.4	57.2	0.0	19881	20.2	13
Golden Harvest H2327	E 2X	115.0	51.1	1.2	19211	20.8	18
SeedTec ST7212	E 2X	114.6	56.6	1.1	19769	19.9	17
Asgrow/O'Gold RX406	E 2X	114.6	52.9	1.1	19881	19.8	16
Asgrow/O'Gold RX409	E 2X	114.2	54.9	2.2	20105	19.8	19
Betagold Irene	E 2X	113.0	54.6	0.0	20105	22.1	25
Tecnagene DF4894	E 2X	112.8	55.1	0.0	19769	19.8	22
Jacques 4170	E 2X	112.5	52.4	0.6	19769	22.5	28
Garst 8882	E 2X	112.1	54.8	1.1	20105	20.3	24
Jacques 4550	E 2X	111.6	53.9	0.6	20105	21.6	27
Tecnagene DF4992	E 2X	110.9	56.6	0.0	19993	20.1	26
DeKalb DK435	E 2X	108.0	54.5	0.0	19881	21.5	30
Sigco 1793	E 2X	107.8	55.9	0.6	19881	20.2	29
Top Farm SX1195A	E 2X	106.8	54.7	1.1	19546	20.1	31
AgriPro AP175	M 2X	105.3	53.1	0.0	19211	23.3	36
Terning Premier+	E 2X	105.0	53.7	1.1	19881	19.9	33
Garst 8939	E 2X	104.4	56.1	0.0	19434	19.7	32
Dahlgren DC-492	E 2X	103.6	56.7	2.8	19881	20.0	35
Golden Valley 247	E 2X	103.2	52.8	0.6	18541	20.0	34
Interstate IS463	E 2X	100.9	53.0	0.0	19658	20.3	37
Betagold Gerda	E 2X	97.2	57.5	3.9	19881	18.9	38
Conti 8304	E 2X	94.8	54.7	0.6	19434	19.0	39
Means		112.8	54.8	0.8	19772	20.6	
LSD(.05)		N.S.			CV -	9.6 %	

Table 14. 1989 Corn Performance Trial, Area D1(late), Deuel Co., SD

Brand and Variety	Type and Cross	Yield B/A	Test Weight Lb/B	% Stalk Lodged	Aver. Plants /acre	% Moist	Perfor- mance Score
Phoenix PH2501	M 2X	117.5	50.1	1.7	20105	23.3	2
Custom CFS 5510	M 2X	117.1	46.9	0.0	20328	25.9	5
Northrup King N3624	E 2X	116.9	54.5	0.6	19658	18.7	1
Custom CFS 4209	M 2X	116.8	50.4	0.0	20105	24.7	4
AgriPro AP364	M 2X	115.4	48.7	0.0	19769	24.5	6
Northrup King N4350	M 2X	114.9	50.2	0.0	20105	22.5	3
Asgrow RX578	M 2X	114.5	44.8	0.0	19993	27.8	11
Golden Valley 2981	M 2X	113.9	50.7	0.0	19323	23.3	7
Top Farm SX1101	M 2X	112.3	50.5	0.0	19211	25.2	10
Horizon 6101	M 2X	111.8	47.7	0.0	19211	25.5	12
Interstate EX0061	M 2X	111.7	49.0	0.6	18429	23.1	8
Betagold Karla	M 2X	111.1	52.1	1.7	19881	22.8	9
Sigco 1701	M 2X	110.9	47.1	1.2	19323	25.6	14
Pioneer 3733	M 2X	110.1	54.5	0.6	20105	24.1	13
Betagold Katrina	M 2X	109.3	48.6	0.0	19658	24.9	15
Golden Harvest H2404	M 2X	109.2	48.9	0.6	20105	24.5	16
Terning Encore II	M 2X	107.6	49.4	0.0	18764	23.9	17
Cargill 3627	M 2X	107.6	47.9	0.6	19434	25.1	20
SeedTec 7255	M 2X	107.3	50.4	0.0	17871	23.6	18
Top Farm SX1102	M 2X	106.3	50.8	0.0	19769	23.0	19
Custom CFS W4052	M 2X	105.5	48.0	0.0	19323	24.9	23
Tecnagene DF6802	M 2X	105.1	48.4	0.0	20105	25.6	26
Interstate IS543	M 2X	104.9	47.2	0.0	19434	26.8	27
Tecnagene DF4997	M 2X	104.6	49.9	0.0	19404	23.6	22
Dahlgren DC-502	M 2X	103.7	50.9	0.0	20105	23.6	25
Garst 8808	M 2X	103.5	52.0	0.6	20105	22.0	21
Garst TP0882	M 2X	102.1	52.3	0.6	18876	21.4	24
Supercrost T-2040	M 2X	101.5	45.7	0.7	16642	26.7	29
Pioneer 3790	M 2X	96.8	57.5	0.0	17982	20.1	28
Cargill 3477	M 2X	93.5	57.2	0.0	19881	20.3	30
Garst N6851	M 2X	91.1	53.5	0.6	20105	22.7	31
Golden Valley 2960	M 2X	86.7	48.2	0.0	18988	21.9	32
Top Farm SX1099	E 2X	83.3	47.8	0.0	17871	24.5	33
Means		106.8	50.1	0.3	19393	23.8	
LSD(.05)		17.9			CV -	10.4 %	

Table 15. Area D1(early) 1986-1989 Yield, Moisture, and Stalk Lodging Averages of Corn Hybrids, John Heaton Farm, Gary, Deuel Co., SD

Brand and Variety	Acre Yield, B/A			Stk Lodging, %			Grain Moist, %		
	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr
AgriPro AP148			85			1			19
AgriPro AP175			80			0			23
Asgrow/O's Gold RX406			90			1			19
Betagold Ingrid	100	113	93	5	0	1	18	18	19
Cargill 3027			90			1			19
Cargill 3327			87			0			23
Dahlgren DC440		105	88		1	1		18	20
Garst 8882			93			1			20
Garst 8939			85			0			19
Golden Valley GV247		95	75		0	1		17	19
Golden Valley GV282			88			1			20
Interstate IS443			95			1			22
Interstate IS463		93	81		0	0		17	19
Jacques 4170			85			0			22
Phoenix PX2391			90			1			20
Pioneer 3751			90			1			20
SeedTec KX7212			92			1			19
Sigco 1793			86			0			20
Top Farm SX1195	96	98	89	4	0	0	18	18	19
Top Farm SX1195A			84			1			20

Table 16. Area D1(late) 1986-1989 Yield, Moisture, and Stalk Lodging Averages of Corn Hybrids, John Heaton Farm, Deuel Co., SD

Brand and Variety	Acre Yield, B/A			Stk Lodging, %			Grain Moist, %		
	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr
AgriPro AP364			91			0			24
Asgrow/O's Gold RX578			88			0			28
Betagold Karla			86			1			23
Cargill 3477			82			0			20
Custom CFS W4052			76			0			25
Dahlgren DC-502			85			0			23
Garst TP0882			81			1			21
Garst 8808			87			0			21
Golden Valley GV2960			70			1			21
Golden Valley GV2981			90			1			22
Interstate IS543		98	85		1	0		24	27
Northrup King N3624			91			0			18
Northrup King N4350			89			1			21
Top Farm SX1099	90	87	76	1	1	0	20	20	22
Top Farm SX1101			89			0			22
Top Farm SX1102		109	93		0	0		21	23

Table 17. 1989 Corn Performance Trial, Area C1(Irrigated-early), Redfield, SD

Brand and Variety	Type and Cross	Yield B/A	Test Weight Lb/B	% Stalk Lodged	Aver. Plants /acre	% Moist	Perfor- mance Score
Northrup King N3624	E 2X	180.8	62.1	0.0	29487	14.9	1
Interstate IS463	E 2X	171.4	61.4	3.3	27364	17.6	2
Top Farm SX1195A	E 2X	169.7	59.1	3.5	28705	16.8	3
Phoenix PH2501	M 2X	168.2	62.0	5.9	28370	17.6	6
Top Farm SX1102	M 2X	166.8	60.9	3.1	28481	18.2	8
Sigco 1701	M 2X	166.6	58.5	2.0	28258	19.1	10
Garst 8882	E 2X	164.9	61.1	0.8	27588	16.2	5
Asgrow/O'Gold RX409	E 2X	164.6	60.2	0.4	27364	15.9	4
Interstate EX0061	M 2X	164.1	60.1	0.4	26136	17.0	7
Sigco 1793	E 2X	163.9	61.5	0.8	27364	17.1	9
Terra TR975	E 2X	162.9	58.5	0.4	27029	19.9	14
Supercroft 2277	M 2X	160.5	58.1	0.8	27811	17.6	13
Curry 1405	E 2X	159.5	62.0	0.4	28928	16.9	12
Pioneer 3751	E 2X	159.3	62.2	1.3	26694	15.7	11
Terra TR164E	E 2X	155.1	57.8	2.0	27811	20.7	21
Horizon 6101	E 2X	153.9	58.7	2.2	25019	19.9	22
Top Farm SX1101	M 2X	153.2	58.7	0.8	26471	18.7	18
Betagold Ingrid	E 2X	152.7	63.3	3.8	29040	16.3	16
Sigco 1799	M 2X	152.2	62.3	3.5	28370	17.6	19
Asgrow/O'Gold RX498	M 2X	149.7	61.1	0.0	27923	16.2	17
AgriPro AP175	M 2X	149.7	60.8	0.0	27141	17.1	20
Horizon 8095	E 2X	148.7	60.7	2.3	29152	17.2	23
Interstate IS543	M 2X	148.6	57.9	1.8	25242	19.6	25
Supercroft T-2040	M 2X	147.5	56.6	1.6	21445	20.6	27
Betagold Irene	M 2X	146.7	63.1	0.8	26471	16.9	24
Terning Spirit	E 2X	146.4	60.0	1.2	27700	18.3	26
Terra TR95E	E 2X	142.5	60.2	2.2	25912	17.9	28
Conti 8550	M 2X	137.8	63.5	0.4	25131	16.0	29
Pioneer 3733	E 2X	136.0	60.2	0.9	26024	18.5	30
Garst TP0882	E 2X	126.2	60.8	0.0	18988	15.5	31
Means		155.7	60.3	1.5	26687	17.6	
LSD(.05)		23.7			CV -	9.4 %	

Table 18. 1989 Corn Performance Trial, Area C1(Irrigated-late), Redfield, SD

Brand and Variety	Type and Cross	Yield B/A	Test Weight Lb/B	% Stalk Lodged	Aver. Plants /acre	% Moist	Performance Score
AgriPro AP424	M 2X	168.6	55.9	0.0	28481	19.9	1
Supercrost 3130	L 2X	167.5	57.0	0.0	28705	20.0	2
Tecnagene DF6906	M 2X	166.2	58.0	1.2	28928	21.4	3
McCurdy 5222	M 2X	163.7	55.3	0.4	28258	21.6	4
Northrup King N4590	M 2X	163.0	57.3	0.8	28705	21.2	5
Tecnagene DF6905	M 2X	161.9	54.8	0.8	27029	22.4	7
Horizon 7113	M 2X	160.0	53.5	0.4	28816	21.4	10
Cargill 4327	M 2X	159.2	55.7	0.4	27029	20.7	9
Tecnagene DF6805	M 2X	158.7	58.5	0.4	27923	19.1	6
Terra TR1125	M 2X	158.5	53.3	0.0	27700	23.6	14
Pioneer 3475	M 2X	158.3	56.2	0.4	26918	21.4	13
Northrup King N4350	M 2X	156.8	58.0	0.4	27923	18.7	8
Tecnagene DF8911	M 2X	155.5	53.8	1.2	27476	21.8	15
Northrup King N4545	M 2X	155.3	57.6	0.4	27811	19.1	12
DeKalb DK535	M 2X	155.0	57.2	0.0	26583	18.8	11
Pioneer 3578	M 2X	152.4	58.1	2.1	26471	19.6	17
Top Farm SX1105	M 2X	151.6	57.0	0.4	27141	21.7	20
Terning Bravo	M 2X	151.6	60.2	1.2	27811	19.2	16
Terra TR1040	M 2X	151.5	56.7	0.0	28593	21.3	18
Betagold Karla	L 2X	149.0	60.4	0.8	28705	19.1	19
Jacques 5700	M 2X	148.5	57.6	1.7	27029	20.6	21
Top Farm SX1103	M 2X	148.4	56.6	1.6	27811	21.3	23
Curry SC1464	M 2X	148.1	56.6	0.0	28146	21.6	22
Conti 8650	M 2X	147.6	58.2	3.3	27141	20.4	25
McCurdy 5750	M 2X	147.2	54.4	1.3	26471	21.5	29
Horizon 4111	M 2X	147.2	57.0	1.2	27476	20.7	24
Cargill 5157	M 2X	146.1	57.2	0.4	19881	20.8	27
Betagold Hanna	L 2X	145.0	57.1	1.9	28705	20.9	30
Garst N6760	M 2X	144.3	61.9	2.8	28370	18.1	26
Cargill 4227	M 2X	144.1	57.8	1.6	27141	21.0	31
Jacques 4900	M 2X	144.0	59.6	1.5	29487	19.0	28
Supercrost EX8110	L 2X	143.4	53.5	0.8	27141	21.7	32
Tecnagene DF6802	M 2X	141.1	57.6	1.2	28370	20.9	34
AgriPro AP364	M 2X	141.0	58.0	1.2	28928	20.1	33
Interstate 543	M 2X	140.3	57.0	1.6	27476	20.9	35
AgriPro AP378	M 2X	139.3	57.3	1.6	28370	20.4	36
Cargill 6027	M 2X	138.1	57.2	0.0	26918	20.8	37
Interstate 729	L 2X	136.9	57.4	0.8	28258	21.8	41
Terning Encore II	M 2X	135.6	60.5	3.2	27811	19.3	38
McCurdy 4925	M 2X	134.4	55.8	0.4	25912	20.8	42
Pioneer 3615	M 2X	134.4	58.5	0.5	24572	19.8	39
Northrup King S5750	M 2X	133.7	56.6	0.5	22897	21.2	44
Betagold Katrina	L 2X	133.3	60.5	1.7	25577	18.7	40
DeKalb DK524	M 2X	132.9	58.2	0.0	21892	20.6	43
Garst 8708	M 2X	129.7	58.9	1.7	25801	20.7	45
Curry SC1446	M 2X	128.3	58.0	1.4	23455	20.3	46
Means		148.2	57.2	1.0	27131	20.6	

LSD(.05)

23.2

CV - 9.7 %

Table 19. Area C1(Irrigated-early) 1986-1989 Yield, Moisture, And Stalk Lodging Averages of Corn Hybrids, James Valley Research Center, Redfield, SD

Brand and Variety	Acre Yield, B/A			Stk Lodging, %			Grain Moist, %		
	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr
AgriPro AP175			157			0			
Asgrow/O'S Gold RX49			158			0			18
Betagold Ingrid	161	157	151	3	4	2	17	16	16
Garst 8882			166			1			15
Interstate IS463		160	164		2	2		16	17
Interstate IS543			157			1			20
Northrup King N3624			173			0			15
Pioneer 3751			166			1			16
Sigco 1701			160			1			20
Sigco 1793			161			0			16
Sigco 1799			163			2			18
Supercrost 2277			150			0			19
Terra TR975			162			0			18
Top Farm SX1101			153			1			19
Top Farm SX1102		178	169		2	2		18	18

Table 20. Area C1(irrigated-late) 1986-1989 Yield, Moisture, and Stalk Lodging Averages of Corn Hybrids, James Valley Research Center, Redfield, SD

Brand and Variety	Acre Yield, B/A			Stk Lodging, %			Grain Moist, %		
	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr
AgriPro AP364			151			1			20
Betagold Hanna			154			1			21
Betagold Karla			169			0			19
Cargill 4227			154			1			21
Cargill 5157		168	159		0	0		20	21
DeKalb DK524	159	158	151	1	1	0	23	20	20
DeKalb DK535			163			0			20
Garst 8708			149			1			21
Horizon 6101	165	157	156	2	3	1	22	20	20
Horizon 7113			177			0			22
Interstate IS543		158	157		2	1		20	21
Jacques 4900			157			1			19
Jacques 5700			158			1			21
McCurdy 4925			147			0			21
McCurdy 5750	183	177	161	1	1	1	24	22	22
Northrup King N4350			164			0			18
Northrup King N4545			159			0			20
Northrup King S4590			162			0			21
Pioneer 3615			150			0			19
Tecnagene DF6802			151			1			21
Tecnagene DF6805			163			0			20
Terra TR1040			167			0			22
Top Farm SX1103			144			1			21

Table 21. 1989 Corn Performance Trial, Area C1(Dryland-early), Redfield, SD

Brand and Variety	Type and Cross	Yield B/A	Test Weight Lb/B	% Stalk Lodged	Aver. Plants /acre	% Moist	Performance Score
Top Farm SX1102	M 2X	127.5	60.9	0.7	15860	18.2	1
Sigco 1799	M 2X	127.4	61.4	2.8	15972	18.1	2
Phoenix PH2501	M 2X	125.5	60.7	0.7	15413	18.3	3
Pioneer 3737	E 2X	118.1	62.1	2.1	15637	15.4	4
Phoenix PH2391	E 2X	117.3	62.9	0.0	16084	16.5	5
Asgrow/O'Gold RX409	M 2X	115.0	61.4	0.0	15413	16.4	6
Garst 8882	M 2X	114.9	63.4	0.7	14967	16.1	7
Interstate IS543	E 2X	114.6	59.9	0.7	15749	19.1	11
Pioneer 3751	E 2X	114.2	61.9	1.5	15190	15.6	8
Betagold Ingrid	E 2X	113.8	63.2	1.4	16307	16.4	9
Pioneer 3733	M 2X	113.3	61.8	0.0	13850	17.9	12
SeedTec ST7255	E 2X	113.2	60.6	1.6	14297	18.0	13
AgriPro AP148	M 2X	112.8	63.5	0.0	16084	16.3	10
Terra TR975	E 2X	111.5	60.0	2.2	15302	18.9	17
Terning Premier+	E 2X	111.3	62.4	0.0	15078	16.8	14
Horizon 8095	E 2X	110.2	63.3	1.6	13961	16.7	15
Terra TR164E	E 2X	110.1	58.9	0.7	15749	19.2	19
Terra TR95E	E 2X	109.1	62.7	0.0	13738	16.8	16
Top Farm SX1195A	E 2X	108.3	62.8	0.8	14743	16.6	18
Betagold Irene	E 2X	107.4	62.6	1.4	16195	17.0	21
Supercrost 2244	E 2X	107.0	58.4	0.7	15637	17.5	22
Cargill 3027	E 2X	106.9	57.2	0.7	19881	16.5	20
Interstate IS463	E 2X	105.6	63.2	2.8	15749	16.6	23
Garst TP0882	M 2X	105.1	62.2	3.6	15302	15.8	24
Sigco 1793	E 2X	105.0	62.9	0.8	14520	16.8	25
Dahlgren DC-440	E 2X	101.5	63.6	4.5	14855	16.4	28
Betagold Gerda	E 2X	100.7	64.2	0.0	15413	16.0	26
Supercrost T-2040	E 2X	100.5	59.1	0.0	13850	19.2	31
Terning Express	E 2X	99.9	65.7	0.0	16195	16.1	27
Interstate EX0061	E 2X	99.1	59.5	2.2	14967	16.6	29
Top Farm SX1101	M 2X	99.0	60.8	0.0	12845	17.4	30
Sigco 1701	M 2X	97.6	58.2	3.0	14743	19.1	34
Cargill 3477	E 2X	96.8	62.6	1.6	13850	16.3	32
Conti 8550	M 2X	96.7	62.4	0.7	15190	16.6	33
Asgrow/O'Gold RX498	M 2X	95.6	59.6	1.5	15190	17.7	35
Cargill 3327	E 2X	91.9	63.2	1.5	14632	16.7	36
Cargill 3627	E 2X	90.5	59.1	0.0	13291	18.0	37
Phoenix PH2431	M 2X	79.3	57.7	4.5	12398	18.0	38
Means		106.3	61.4	1.2	14964	17.1	
LSD(.05)		19.1			CV -	11.2 %	

Table 22. Area C1(Dryland-early) 1986-1989 Yield, Moisture, And Stalk Lodging Averages of Corn Hybrids, James Valley Research Center, Redfield, SD

Brand and Variety	Acre Yield, B/A			Stk Lodging, %			Grain Moist, %		
	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr
AgriPro AP148			105			0			17
Asgrow/O'S Gold RX49		125	105		1	1		18	18
Betagold Ingrid	135	131	119	2	1	1	18	17	17
Cargill 3027			108			0			16
Cargill 3327			96			1			18
Cargill 3477			94			1			16
Dahlgren DC-440			113			2			16
Interstate IS463		123	104		1	1		17	17
Interstate IS543		134	119		0	0		19	19
Phoenix PH2391			120			0			17
Phoenix PH2501			128			0			19
Pioneer 3737	140	131	118	1	1	1	18	17	17
Pioneer 3751			113			1			16
SeedTec KX7255			119			1			19
Sigco 1701			110			2			19
Sigco 1793			100			0			17
Sigco 1799			119			1			19
Terra TR95E			111			0			17
Terra TR975			110			1			19
Top Farm SX1101			110			0			17
Top Farm SX1102		141	127		0	0		18	18

Table 23. Area C1(Dryland-late) 1986-1989 Yield, Moisture, and Stalk Lodging Averages of Corn Hybrids, James Valley Research Center, Redfield, SD

Brand and Variety	Acre Yield, B/A			Stk Lodging, %			Grain Moist, %		
	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr
Betagold Karla			116			0			19
Horizon 6101	137	130	111	0	0	0	22	20	21
Interstate IS543		135	120		0	0		20	20
Pioneer 3615			107			0			18
SeedTec 7344			119			0			20
Supercrost EXP8110			123			0			23
Terra TR1040	144	139	117	0	0	0	23	21	22
Terra TR1125			111			0			23
Top Farm SX1103			120			0			20

Table 24. 1989 Corn Performance Trial, Area C1(Dryland-late) , Redfield, SD

Brand and Variety	Type and Cross	Yield B/A	Test Weight Lb/B	% Stalk Lodged	Aver. Plants /acre	% Moist	Performance Score
AgriPro AP424	M 2X	119.0	58.8	0.7	15972	19.2	1
Conti 8650	L 2X	114.5	57.7	0.0	15972	20.7	2
Terra TR1040	M 2X	112.1	56.1	0.7	15525	21.4	5
Pioneer 3578	M 2X	111.4	60.1	0.0	13961	17.8	3
Terning Encore II	L 2X	111.2	60.6	0.7	15525	19.4	4
Garst 8708	L 2X	109.9	58.9	3.0	15078	20.3	8
Top Farm SX1103	M 2X	109.9	58.7	0.7	15860	20.0	6
Supercroft 2979	L 2X	109.4	56.3	0.0	15972	20.6	7
Top Farm SX1105	M 2X	109.2	59.2	1.5	15190	20.6	10
SeedTec ST7344	M 2X	108.7	57.4	0.0	14855	20.1	9
Horizon 7113	M 2X	106.8	52.0	0.7	15302	22.4	15
Terra TR1125	L 2X	106.6	52.7	0.7	15413	22.4	16
Interstate IS729	L 2X	106.4	59.1	0.0	15302	21.1	12
AgriPro AP378	M 2X	105.3	57.7	0.7	15302	20.6	13
Interstate IS543	M 2X	105.1	57.6	0.8	14408	20.4	14
Pioneer 3615	M 2X	104.9	57.2	0.0	19881	19.0	11
Betagold Karla	M 2X	102.5	59.7	0.0	15637	19.5	17
Supercroft EXP.8110	M 2X	99.7	52.7	0.0	13626	22.2	19
Betagold Katrina	L 2X	96.7	59.9	0.7	15413	18.6	18
Garst N6760	L 2X	94.8	61.2	0.7	15860	17.9	20
Horizon 6101	M 2X	89.3	57.8	0.0	12174	20.4	21
Means		106.3	57.8	0.6	15344	20.2	
LSD(.05)		N.S.			CV - 9.2 %		

Table 25. 1989 Corn Performance Trial, Area D2(late), Watertown(NE Farm), SD

Brand and Variety	Type and Cross	Yield B/A	Test Weight Lb/B	% Stalk Lodged	Aver. Plants /acre	% Moist	Performance Score
Cenex/LOL 432	M 2X	109.8	55.8	0.0	20105	20.2	1
Interstate IS543	M 2X	106.6	52.2	0.0	18988	21.2	2
Tecnagene DF4898	M 2X	102.8	52.9	0.0	19434	20.8	4
Top Farm SX1101	M 2X	101.5	51.6	0.0	19546	20.9	5
Northrup King N3624	M 2X	100.9	54.8	0.0	19881	17.6	3
Golden Valley 2981	M 2X	100.0	55.5	0.0	19658	19.8	6
Cargill 4227	M 2X	98.8	52.9	0.0	19658	20.9	7
Top Farm SX1102	M 2X	98.3	55.6	1.7	19658	20.4	8
SeedTec ST7255	M 2X	95.5	54.4	0.6	19323	20.9	9
Betagold Karla	M 2X	94.3	54.4	0.0	19993	20.3	10
Interstate IS523	M 2X	93.4	53.2	0.6	18988	20.6	12
Terning Encore II	M 2X	93.4	54.5	0.0	19993	20.6	11
Dahlgren DC-502	M 2X	92.3	55.6	1.1	19434	20.2	13
Cargill 3627	M 2X	91.5	51.9	0.0	18317	20.6	14
Betagold Katrina	M 2X	91.5	52.3	0.6	19769	21.1	15
DeKalb DK524	M 2X	90.3	51.0	0.0	16419	20.5	16
Golden Valley 2960	M 2X	87.7	55.2	0.0	19658	19.2	17
Garst N6851	E 2X	82.8	56.8	1.2	19099	18.4	18
Cargill 4327	M 2X	80.1	49.5	0.0	19323	21.1	19
Cargill 5157	M 2X	78.9	57.2	0.0	19881	22.6	20
Means		94.5	53.9	0.3	19356	20.4	
LSD(.05)		N.S.			CV -	9.5 %	

Table 26. Area D1(late) 1986-1989 Yield, Moisture, and Stalk Lodging Averages of Corn Hybrids, Northeast Research Farm, Codington Co., SD

Brand and Variety	Acre Yield, B/A			Stk Lodging, %			Grain Moist, %		
	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr
Betagold Karla			86			0			28
Cargill 4227			90			0			28
Cargill 5157			79			0			29
Dahlgren DC-502			79			1			26
Interstate IS523			89			0			27
Interstate IS543			101			0			28
Northrup King N3624			73			0			24
SeedTec 7255			84			1			30

Table 27. 1989 Corn Performance Trial, Area D2(early), Watertown, SD

Brand and Variety	Type and Cross	Yield B/A	Test Weight Lb/B	% Stalk Lodged	Aver. Plants /acre	% Moist	Performance Score
Interstate IS463	E 2X	102.8	59.2	0.6	19993	17.6	1
Betagold Ingrid	E 2X	102.1	60.8	0.0	19881	17.4	2
Dahlgren DC-440	E 2X	101.1	57.5	1.1	19993	18.8	4
Golden Valley 282	E 2X	100.9	60.7	0.0	19769	17.3	3
Top Farm SX1195	E 2X	98.1	59.3	1.1	19769	18.1	5
Cenex/LOL 385	E 2X	96.2	60.8	0.6	19434	17.2	6
Interstate IS443	E 2X	94.7	57.0	0.6	20105	18.6	8
Sigco 1799	E 2X	93.8	56.8	0.0	19769	19.1	13
Tecnagene DF4894	E 2X	93.8	58.5	0.0	19993	18.2	10
Top Farm SX1195A	E 2X	93.8	59.7	0.0	20105	17.9	9
Northrup King N2440	E 2X	93.5	61.2	0.0	19769	16.9	7
Tecnagene DF4893	E 2X	92.9	60.0	0.0	19434	17.4	11
Golden Harvest H2327	E 2X	92.8	57.3	0.6	19434	19.0	16
Pioneer 3902	E 2X	92.4	62.1	0.0	19993	16.8	12
Betagold Gerda	E 2X	91.9	60.0	0.0	20105	17.4	14
Garst 8939	E 2X	91.6	58.3	0.0	19993	17.6	15
Terning Select	E 2X	89.4	61.5	0.6	20105	16.9	17
Tecnagene DF4890	E 2X	89.1	60.4	0.0	19434	16.8	18
Terning Premier+	E 2X	89.1	56.8	0.0	18429	19.1	24
Asgrow/O'Gold RX409	E 2X	88.9	57.2	0.0	19769	18.5	22
AgriPro AP077	E 2X	88.7	62.0	0.6	19546	16.2	19
Garst N6952	E 2X	88.3	59.9	1.1	20105	17.0	21
Asgrow/O'Gold RX337	E 2X	88.3	60.6	0.0	20105	16.6	20
Sigco 1793	E 2X	88.0	59.1	0.6	19434	17.5	23
Golden Harvest X783	E 2X	88.0	58.3	1.1	19993	17.3	25
DeKalb DK464	E 2X	87.7	57.2	0.0	19881	19.6	28
Betagold Irene	E 2X	86.7	58.0	0.0	19546	18.1	27
SeedTec ST7212	E 2X	86.5	57.3	0.0	19546	18.8	31
Top Farm SX1194	E 2X	86.3	58.0	0.6	19099	17.9	30
Asgrow/O'Gold RX406	E 2X	86.2	60.2	0.6	19993	16.9	26
Pioneer 3737	E 2X	86.1	58.8	0.6	17647	17.4	29
Pioneer 3790	E 2X	85.6	58.7	0.0	19434	18.4	33
AgriPro AP148	E 2X	85.2	58.4	0.6	19993	17.6	32
Dahlgren DC-492	E 2X	83.3	58.0	0.0	19099	18.9	36
Garst 8882	E 2X	83.0	59.0	0.6	19881	17.8	35
AgriPro AP097	E 2X	82.3	63.0	0.6	20216	16.3	34
Conti 8455	E 2X	81.6	57.2	0.0	20105	18.4	37
SeedTec ST7147	E 2X	80.3	61.3	0.6	19993	16.8	38
Tecnagene DF4992	E 2X	76.8	59.2	0.6	20105	17.8	41
Dahlgren DC-430	E 2X	76.6	60.2	0.0	20105	17.0	39
Interstate IS406	E 2X	75.8	60.6	0.0	19434	16.5	40
Conti 8304	E 2X	75.6	61.8	0.0	18541	16.9	42
Means		88.9	59.3	0.3	19610	17.3	
LSD(.05)		N.S.		CV	-	11.7 %	

Table 28. Area D2(early) 1986-1989 Yield, Moisture, and Stalk Lodging Averages of Corn Hybrids, Northeast Research Farm, Codington Co., SD

Brand and Variety	Acre Yield, B/A			Stk Lodging, %			Grain Moist, %		
	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr
AgriPro AP077			64			1			23
Betagold Ingrid			84			0			24
Dahlgren DC-430			58			0			22
Dahlgren DC-440			84			1			24
Garst 8882			66			1			26
Garst 8939			69			1			25
Interstate IS406			60			0			23
Interstate IS443			67			0			26
Interstate IS463			81			1			22
Pioneer 3737			73			1			26
SeedTec 7212			78			1			21
Sigco 1793			76			0			22
Tecnagene DF4894			65			0			24

Table 29. Area D3(early) 1986-1989 Yield, Moisture, and Stalk Lodging Averages of Corn Hybrids, Plant Science Farm, Brookings, SD

Brand and Variety	Acre Yield, B/A			Stk Lodging, %			Grain Moist, %		
	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr
AgriPro AP148			94			1			17
AgriPro AP175		115	93		0	0		18	19
Asgrow/O'Gold RX406			93			1			17
Betagold Ingrid		119	94		1	2		16	17
Betagold Karla			102			2			20
Cargill 3477			95			1			19
Crow's 195			88			1			21
Crow's 210		118	101		1	1		21	22
Dahlgren DC-440			102			2			17
Garst TP0882			93			0			19
Garst 8882			94			1			18
Golden Harvest H2343			97			0			19
Hoegemeyer SX2559			94			1			16
Interstate IS443			99			1			18
Interstate IS543		126	102		0	0		21	21
Northrup King N3624			101			0			16
Pioneer 3737	130	126	109	1	1	1	18	17	18
Pioneer 3751			102			0			18
SeedTec KX7255			99			1			20
Sigco 1701			102			1			21
Sigco 1799			105			1			20
Terra TR95E			98			2			17
Terra TR975			102			2			20

Table 30. 1989 Corn Performance Trial, Area D3(early), Brookings, SD

Brand and Variety	Type and Cross	Yield B/A	Test Weight Lb/B	% Stalk Lodged	Aver. Plants /acre	% Moist	Performance Score
Pioneer 3733	E 2X	157.3	58.2	0.0	20105	19.5	3
Sigco 1799	M 2X	156.9	58.1	1.7	19993	18.0	1
Golden Harvest H2343	E 2X	154.6	57.3	0.6	19881	16.8	2
Cenex/LOL 432	E 2X	154.0	59.3	1.1	20105	17.6	4
Terra TR164E	E 2X	152.2	56.3	0.6	19881	20.1	8
Terra TR975	E 2X	149.8	55.4	2.8	20105	19.9	13
Pioneer 3751	E 2X	149.4	58.8	0.6	20105	16.4	6
Interstate IS543	E 2X	149.3	55.5	0.0	19769	20.2	11
Northrop King N3624	E 2X	148.9	58.8	0.6	19881	14.4	5
Pioneer 3737	M 2X	148.7	57.7	1.1	20105	17.0	7
Hoegemeyer SX2576	E 2X	148.1	54.5	2.8	19769	20.1	18
Crow's 210	E 2X	147.9	54.6	0.6	20105	20.2	16
Sigco 1701	M 2X	147.3	56.0	1.1	20105	20.1	19
Interstate EX0061	M 2X	146.7	52.7	0.6	19658	17.2	9
Interstate IS443	E 2X	146.6	59.1	0.6	20216	17.7	10
Betagold Katrina	M 2X	146.3	57.7	0.0	20105	19.3	17
Top Farm SX1102	M 2X	145.9	58.5	1.7	20105	17.8	14
Betagold Irene	M 2X	145.9	59.7	1.7	20105	17.8	14
Golden Valley 2981	M 2X	144.3	58.5	2.2	20105	18.1	20
4-Star 5408	E M2X	143.7	58.3	1.7	20105	18.9	26
Betagold Ingrid	E 2X	143.3	62.4	2.8	20105	14.4	12
AgriPro AP175	M 2X	143.1	59.4	0.6	20105	18.2	23
Supercrost 1999	E 2X	142.6	57.9	1.1	19993	18.6	28
Tecnagene DF4893	M 2X	142.4	59.3	0.0	19658	18.0	24
Curry SC1405	E 2X	142.3	59.4	2.2	20105	17.5	25
Tecnagene DF4997	M 2X	142.1	58.2	1.7	19658	18.3	29
Garst TP0882	E 2X	141.9	58.9	0.6	19769	16.7	21
Betagold Karla	M 2X	141.7	59.6	4.5	19769	18.8	32
SeedTec ST7255	E 2X	140.8	58.7	1.7	19211	18.4	30
Garst 8882	E 2X	140.5	59.9	1.7	20105	16.3	27
Dahlgren DC-440	E 2X	140.0	59.5	3.3	20105	14.5	22
Top Farm SX1101	M 2X	139.2	57.6	2.3	19658	19.3	36
Golden Harvest H2327	E 2X	138.9	57.8	3.9	19993	17.4	33
Cargill 3477	E 2X	138.4	57.2	2.2	19881	19.3	37
Tecnagene DF4894	M 2X	136.5	62.4	2.8	20105	15.1	31
Terra TR95E	E 2X	135.5	60.3	3.5	19099	15.5	35
Asgrow/O'Gold RX406	E 2X	134.9	61.8	1.7	20105	15.5	34
Cargill 3627	E 2X	133.8	57.9	0.6	19211	19.5	42
Asgrow/O'Gold RX409	M 2X	133.5	60.2	1.1	20105	15.9	38
Top Farm SX1195A	E 2X	132.6	60.5	2.2	20105	16.0	39
AgriPro AP148	E 2X	131.6	60.1	1.7	20105	17.0	41
Hoegemeyer SX2559	E 2X	130.1	60.5	2.2	20105	15.4	40
Crow's 195	E 2X	129.0	56.6	1.2	18317	17.2	44
Horizon 8095	E 2X	128.6	60.9	1.7	19993	15.6	43
Conti 8550	M 2X	123.0	58.3	0.0	19881	19.3	47
Custom W2051	E 2X	122.8	59.3	0.0	19993	15.1	45
Dahlgren DC-492	E 2X	122.4	62.0	1.1	19993	16.8	46
SeedTec ST7147	E 2X	110.4	61.3	2.8	19658	15.6	48
Means		141.1	58.4	1.5	19846	17.6	

LSD(.05)

13.1

CV - 5.8 %

 Table 31. 1989 Corn Performance Trial, Area D3(late), Brookings, SD

Brand and Variety	Type and Cross	Yield B/A	Test Weight Lb/B	% Stalk Lodged	Aver. Plants /acre	% Moist	Perfor- mance Score
Tecnagene DF6905	M 2X	159.1	53.2	1.1	20105	20.9	1
DeKalb DK535	M 2X	154.2	52.7	2.2	20105	19.3	6
Custom CFS 5510	M 2X	153.2	55.5	0.6	20105	20.2	5
Cargill 4327	M 2X	152.0	55.6	0.0	19658	18.8	3
McCurdy 4925	M 2X	151.8	52.9	0.6	19099	20.4	8
Pioneer 3585	M 2X	151.5	57.1	1.1	20105	18.6	4
S-Brand SS-55B	L 2X	151.5	47.9	1.1	19881	22.4	15
Asgrow/O'Gold RX578	L 2X	151.2	53.8	0.6	19769	21.0	10
Northrup King N4350	M 2X	150.8	57.9	1.7	19434	16.2	2
Terning Frontier	M 2X	150.3	55.4	2.8	20105	20.2	12
Northrup King N4545	M 2X	149.7	54.7	0.0	19993	17.9	7
Pioneer 3615	M 2X	149.7	55.6	0.0	20216	19.8	9
Curry SC1464	M 2X	149.7	55.1	0.6	20105	21.1	14
McCurdy 52222	M 2X	149.5	54.5	0.6	20105	20.2	11
Northrup King S4590	M 2X	149.5	53.8	1.7	20216	20.5	13
Horizon 4111	M 2X	147.4	51.1	0.6	20105	21.5	25
Hoegemeyer SX2617	M 2X	147.4	52.3	0.0	20105	21.0	18
Conti 8650	L 2X	147.3	55.6	1.7	20216	20.5	19
Betagold Hanna	L 2X	146.9	55.8	1.1	20105	20.0	17
Cargill 4227	M 2X	146.8	54.8	1.7	19993	20.2	20
Jacques 5700	M 2X	146.8	53.9	1.1	19769	20.6	23
Tecnagene DF6802	M 2X	146.7	54.2	1.1	20105	20.4	21
Garst 8708	M 2X	146.4	55.4	1.1	19993	20.5	24
Golden Harvest H2404	M 2X	145.8	57.2	1.7	20105	18.8	16
Jacques 4900	M 2X	145.4	57.9	3.4	19658	18.6	22
Terra TR 1125	M 2X	145.3	47.2	0.6	19993	23.3	36
Top Farm SX1105	M 2X	145.0	54.8	0.0	19993	21.1	30
SeedTec ST7344	M 2X	144.9	55.4	1.7	19993	19.9	27
Crow's 414	L 2X	144.8	49.1	0.0	20105	22.3	34
4-Star 5435	M M2X	144.5	56.1	1.1	19993	19.9	28
Curry SC1423	E 2X	144.4	56.1	1.1	20105	19.7	26
AgriPro AP364	L 2X	144.1	53.1	1.1	20105	20.8	32
DeKalb DK524	M 2X	143.9	54.0	1.1	19881	20.3	31
Terning Prevail	M 2X	143.8	55.9	1.1	20216	19.7	29
Top Farm SX1103	M 2X	143.5	54.6	2.2	19993	20.3	33
Terra TR 1040	M 2X	142.4	52.4	1.7	20105	21.2	38
Dahlgren DC-502	M 2X	141.5	58.4	4.4	20105	18.2	35
Supercroft T-2040	M 2X	141.1	55.7	2.8	19769	19.9	39
Crow's 444	M 2X	141.1	50.1	1.1	20105	20.9	40
Hoegemeyer SX2582	M 2X	140.2	52.3	0.6	20105	19.3	37
Interstate IS543	M 2X	139.8	55.4	1.7	19993	20.3	42
Cargill 5157	M 2X	139.2	57.2	1.7	19881	19.5	41
Cenex/LOL 451	M 2X	138.9	55.8	3.3	20105	20.1	43
Crow's 442	M 2X	137.2	50.4	1.8	18876	21.6	44
S-Brand CB1090	L 2X	135.8	50.4	0.6	17982	21.6	45
Interstate IS729	L 2X	135.4	55.6	1.7	19211	21.1	47
Garst 8808	E 2X	129.0	58.6	2.2	20105	15.8	46
Garst N6760	E 2X	124.3	60.3	3.0	18764	15.8	48
Custom CFS W4052	M 2X	123.6	55.9	1.7	19993	19.5	49
Means		144.6	54.5	1.3	19886	20.0	

 LSD(.05)

12.5

CV -

5.3 %

Table 32. Area D3(late) 1986-1989 Yield, Moisture, and Stalk Lodging Averages of Corn Hybrids, Plant Science Farm, Brookings, SD.

Brand and Variety	Acre Yield, B/A			Stk Lodging, %			Grain Moist, %		
	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr	4-Yr	3-Yr	2-Yr
AgriPro AP364		124	103	0	1		21	21	
Betagold Hanna			103		1			21	
Cargill 4227			100		1			22	
Cargill 5157			101		1			22	
Curry SC1423		127	106	1	1		19	20	
Custom CFS W4052			82		1			21	
Custom CFS 5510			108		1			21	
Dahlgren DC-502			99		3			19	
Garst 8708			108		1			21	
Garst 8808			93		1			19	
Hoegemeyer 2617			100		0			23	
Interstate IS543		125	101	1	1		21	21	
Jacques 4900			106		2			19	
Jacques 5700			108		1			22	
McCurdy 4925			102		0			22	
Northrup King N4350			104		1			17	
Northrup King N4545			105		0			20	
Northrup King S4590			106		1			22	
Pioneer 3585			110		1			19	
Pioneer 3615			102		0			20	
SeedTec ST7344			102		1			21	
Terra TR1040		126	102	1	1		24	24	

Table 33. Entries Included in 1989 Trials and Tables where the Results Appear.

Company and Brand	Entry	Tables	Company and Brand	Entry	Tables
AgriPro Seeds	AP077	27,28	Dahlgren Co.	DC430	27,28
PO Box 250	AP097	27	PO Box 609	DC440	13,15,21,27,28,29,30
Brookings, SD 57006	AP148	13,15,21,22,27,29,30	1220 Sunflower St.	DC492	13,27,30
"AgriPro"	AP175	13,15,17,19,29,30	Crookston, MN 56716	DC502	14,16,25,26,31,32
	AP364	14,16,18,20,31,32	"Dahlgren"	DC510	9
	AP378	18,24		DC527	5,9,10
	HP424	5,9,18,24		DC541	7,8,10
	HP510	7,		DC545	7,8
	HP525	5,6,10,12	DeKalb-Pfizer Genetics	DK435	13
	HP595	9,10	3100 Sycamore Road	DK464	27
Asgrow Seed Co.	RX337	27	DeKalb, IL 60115	DK524	18,20,25,31
7000 Portage Road	RX406	13,15,27,29,30	"DeKalb-Pfizer"	DK535	5,6,9,18,20,31
Kalamazoo, MI 49001	RX409	13,17,21,27,30		DK584	5,9
"Asgrow/O's Gold"	RX498	17,19,21,22		DK612	7
	RX578	5,6,9,11,14,16,31		DK636	10,11
	RX626	5,6,10,12	Fontanelle Hybrids	4030	5,6
	RX706	7	Rt. 1, Box 18	4035	5,6
Betagold	Gerda	13,21,27	Nickerson, NE 68044	4280	7,8
PO Box 195	Hanna	5,6,18,20,31,32	"Fontanelle"	4435	7
Shakopee, MN 55379	Ingrid	13,15,17,19,21,22,27,28,29,30	4-Star Seed Co.	5408	30
"Betagold"	Irene	13,17,21,27,30	RR 1, Box 45	5435	31
	Karla	5,6,14,16,18,20,23,24,29,30	Humboldt, SD 57035	5613	5
	Katrina	5,14,18,24,30	"4 Star"	5744	7
	Maria	5,6	E. J. Funk & Sons	1637	13
	853	5	PO Box 67	1999	304
Cargill Hybrid Seeds	3027	13,15,21,22	601 Funk Parkway	2244	214
PO Box 5645	3327	13,15,21,22	Kentland, IN 47951	2277	17,19
Minneapolis, MN 55440	3477	14,16,21,22,25,29,30	"Supercroft"	2979	24
"Cargill"	3627	14,21,30		3130	18
	4227	18,20,25,26,31,32		4366	5,10
	4327	18,25,31		4386	10,12
	5157	9,18,20,25,26,31,32		EX8110	5,6,18,23,24
	6027	7,10,18		T-2040	14,17,21,31
	6127	9,11	Garst Seed Co.	8519	7
	6227	7,8,10,12	PO Box 500	8532	10
	6927	7,8,10	Hwy 210 West	8555	10,12
	7877	7,8	Slayter, IA 50244	8599	10
	8127	7	"Garst"	8708	9,11,18,20,31,32
Cenex/LOL	385	27		8808	14,16,31,32
2827 8th Ave. S.	432	25,30		8882	13,15,17,19,27,28,29,30
Ft. Dodge, IA 51442	451	5,31		8939	13,15,27,28
"Cenex/LOL"	571	7		TP0882	14,16,17,29,30
Crow's Hybrids	195	29,30		N6574	31
PO Box 306	210	5,9,29,30		N6710	5
Milford, IL 60953	414	31		N6715	6,10
"Crow's"	442	5,9,31		N6760	6,18,31
	444	31		N6851	6,14,25
	488	7,9		N6952	6,27
	669	7,10	Hawkeye Hybrids	SX32	5
	682	7,10	Rt. 3, Box 416	SX43	5,6
Curry Seed Co.	1405	17,30	Pella, IA 50219	SX56	6,7
PO Box 517	1423	31	"Hawkeye"		
Elk Point, SD 57025	1446	5,18	Hoegemeyer Hybrids	SX2559	9,11,29,30
"Curry"	1464	5,6,18,31	RR 2	SX2576	9,30
	1468	7	Hooper, NE 68031	SX2582	10,31
	1481	7	"Hoegemeyer"	SX2617	5,,10,12,31,32
Custom Farm Seeds	4209	14		SX2628	5,6
PO Box 160, Rt. 1	5510	14,31		SX2632	7,8
Momence, IL 60954	W2051	30		SX2673	7,8
"CFS"	W4052	14,16,31,32	HyPerformer Seed Co.	HS-25	5
			5100 Poplar,	HS-35	5
			Memphis, TN 38137	HS-45	5
			"HyPerformer"	HS-49	5
				HS-59	7

Table 33 (Continued)

Company and Brand	Entry	Tables	Company and Brand	Entry	Tables
Horizon Seeds	4111	9,11,18,31	Phoenix Seed, Inc.	PH2391	13,15,21,22
PO Box 81823	6101	14,17,20,23,24	717 S. 14th St.	PH2431	21
Lincoln, NE 68501	7113	18,20,24	Fargo, ND 58103	PH2501	14,17,21,22
"Horizon"	8095	9,13,17,21,30	"Phoenix"		
Interstate Seed Co.	IS406	27,28	Pioneer Hi-Bred, Int.	3362	7,10
PO Box 338	IS443	13,15,27,28,29,30	130 SE Willmar Ave.	3379	7,8
1214 Prairie Parkway	IS463	13,15,17,19,21,22,27,28	Willmar, MN 56201	3475	5,6,11,18
W. Fargo, ND 58078	IS523	25,26	"Pioneer Brand"	3569	9,9,11
"Interstate"	IS543	5,6,14,16,17,18,19,20,21,22,23 24,25,26,29,30,31,32		3578	5,9,18,24
	IS613	5,6,7,8		3585	31,32
	IS729	5,7,18,24,31		3615	5,6,9,11,18,20,23,24,31,32
	ex0061	14,17,21,30		3733	14,17,30
				3737	13,21,22,27,28,29,30
Jacques Seed Co.	4170	13,13		3751	13,15,17,19,21,22,29,30
720 St. Croix St.	4550	13		3790	14,27
Prescott, WI 54021	4900	18,20,31,32		3902	27
"Jacques"	5700	18,20,31,32	J.C. Robinson Seed Co.	H2327	5,13,27,30
	6770	7,8	3rd St. & Hwy 64	H2343	29,30
	7770	7,8	PO Box A	H2404	5,9,14,31
	7820	7,8	Waterloo, NE 68069	H2486	7
Kaltenberg Seed Farms	K5400	5	"Golden Harvest"	Ex654	5,9
5506 Hwy 60, Box 278	K6205	5		Ex783	27
Waunakee, WI 53597	K6900	5	Schechinger Seed Co.	SS-54A	7,8,10,12
"Kaltenberg"	K7400	7,8	RR 1, Box 149	SS-55b	7,31
	K7500	7,8	Harlan, IA 51537	SS-57A	7,8,10,12
ContiSeed	83045	13,27	"S Brand"	SS-62a	10,12
702 3rd Street SW	8455	13,27		CB1090	31
Huron, SD 57350	8550	9,17,21,30		CB1140	7,10
"Conti"	8650	9,18,24,31	SeedTec, Intn'l	ST6800	9,11
	8680	5	PO Box 110	ST7147	27,30
McCurdy Seed Co.	4925	10,18,20,31,32	220 6th Street	ST7212	13,15,27,28
522 East Main, Box 66	5222	10,18,31	Carrollton, IL 62016	ST7255	14,21,22,25,26,29,30
Fremont, IA 52561	5750	18,20	"SeedTec"	ST7344	9,11,23,24,31,32
"McCurdy"	6222	7		ST7529	7
	6660	7,8	Sigco Research	1701	5,6,9,11,,14,17,19,21,22,29,30
NC+Hybrids	4616	7,8,10,12	PO Box 289	1793	13,17,19,21,22,27,28
PO Box 4408	5158	7,10	Breckenridge, MN 56520	1799	13,15,17,19,21,22,27,29,30
Lincoln, NE 68504			"Sigco"	1814	5,6,9,11
"NC+"			A.C. Stengel & Sons	GV247	13,15
Northrup King Co.	N2440	27,28	RR 1, Box 315	GV282	13,15,27
715 South 10th St.	N3624	14,16,17,19,25,26,29,30	Milbank, SD 57252	GV2960	14,16,25
Montevideo, MN 50265	N4350	14,16,18,20,31,32	"Golden Valley"	GV2981	14,16,25,30
"Northrup King"	N4545	5,8,9,11,18,20,31,32	Tecnagene Seeds	DF4890	27
	S4590	5,18,20,31,32	PO Box 1325	DF4893	27,30
	S5750	5,8,9,18	415 SW 10th Street	DF4894	13,27,28,30
	S6348	7,8			
	s7751	7,8,10,12			
VDH-Interstate	648	5	Watertown, SD 57201	DF4898	13,25
PO Box 70	SX 872	5	"Tecngene"	DF4992	13,27
Dassel, MN 55325	SX 925	7		DF4997	14,30
"Payco"				DF6802	5,9,14,18,20,31
				DF6805	5,9,18,20
Pfister Hybrid Co.	1575	5		DF6905	5,18,31
PO Box 187	2250	7,8		DF6906	10,18
El Paso, IL 61738				DF6909	10
"Pfister"				DF8911	7,18
				DF8812	7,10,12
			Terning Seeds, Inc.	Bravo	18
			RR 1, Box 259	Encore II	14,18,24,25
			Cokato, MN 55321	Excell	13
			"Terning"	Express	21
				Frontier	9,31
				Premier+	13,21,27
				Prevail	31
				Select	13,27
				Spirit	17

Table 33. Continued)

Company and Brand	Entry	Tables
Terra International #3 Henson Place Champaign, IL 61820 "Terra"	TR95E	17, 21, 22, 29, 30
	TR975	5, 9, 17, 19, 21, 22, 29, 30
	TR1040	5, 6, 9, 11, 18, 20, 23, 24, 31, 32
	TR1120	7, 8, 10, 12
	TR1125	7, 8, 10, 12, 18, 23, 24, 31
	TR164E	5, 6, 9, 11, 17, 21, 30
Top Farm Hybrids PO Box 850 Cokato, MN 55321 "Top Farm"	TF1099A	9, 11, 16
	TF1101	9, 11, 16, 17, 19, 21, 22, 25, 30
	TF1102	9, 11, 16, 17, 19, 21, 22, 25, 30
	TF1103	5, 10, 12, 18, 20, 23, 24, 31
	TF1105	5, 10, 18, 24, 31
	TF1109	7
	TF1112	7
	TF1194	27
	TF1195	13, 15, 27
TF1195A	13, 15, 17, 21, 27, 30	
Wilson Hybrids, Inc. PO Box 391, Hwy 44 E Harlan, IA 51537 "Wilson"	1400b	5, 9
	1640	7, 8, 10, 12
	1670	7, 8, 10

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