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## 1986 Corn Performance Trials

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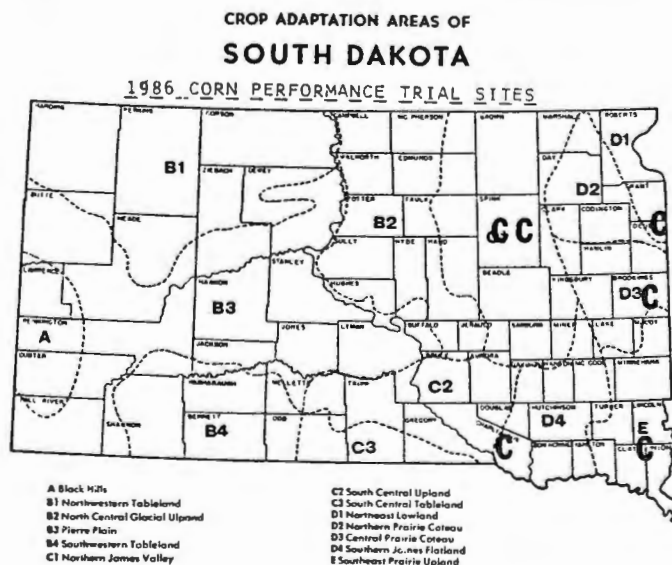
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## 1986 CORN PERFORMANCE TRIALS

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The relative performance of corn hybrids grown under similar environmental conditions in 1986 are evaluated in this report. Information in the accompanying tables includes grain yields in bushels per acre, moisture percentages of shelled corn at harvest, performance scores and other related information. Records of the corn hybrids harvested in 1986 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 1986 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 1986 corn growing season, May-October, are based upon information 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 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 late. Good moisture was available for germination and stands were generally uniform, though lower than desired at Brookings and Centerville. Growth was rapid in the early part of the season where normal moisture and above-normal temperatures were common until mid-June. Moisture was below normal from mid-June until early August in the southern area and at Redfield. From mid-August through September temperatures averaged 5-7 degrees below normal and rain-saturated fields delayed harvest, some until the ground was frozen. Frosts occurred in September but killing temperatures were not recorded until mid-October, allowing translocation to continue and preventing field drydown and harvest. High-velocity straight winds in excess of 80 mph caused lodging and breakage problems at Brookings, Centerville and Geddes during different times of the growing season.

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Table 1. Location of Trials, Date of Seeding, and Harvesting of Corn Performance Trials, South Dakota, 1986.

| Area    | County      | Location                    | Post Office | Dates when |           |
|---------|-------------|-----------------------------|-------------|------------|-----------|
|         |             |                             |             | Seeded     | Harvested |
| C1-dry  | Spink       | James Valley Res. Farm, 6E  | Redfield    | May 21     | Oct. 29   |
| C1-irr. | Spink       | James Valley Res. Farm, 6E  | Redfield    | May 21     | Oct. 30   |
| C2      | Charles Mix | Jack Biddle Farm, 3S, 1E    | Geddes      | May 15     | Oct. 21   |
| D1      | Deuel       | John Heaton Farm, 1W, 5N    | Gary        | May 19     | Oct. 31   |
| D3      | Brookings   | Plant Science Farm, 2NE     | Brookings   | May 7      | Nov. 6    |
| E       | Clay        | Southeast Exp. Farm, 7W, 3S | Beresford   | May 5      | Oct. 27   |

Despite unfavorable conditions all trials were harvested by early November. Yields ranged from excellent to poor. It was estimated that 10% of the farmers' corn fields in this state were unharvested as of December 1.

Corn borers were not a serious problem. 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 days for Area D1, 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 except for hybrids included by the Agricultural Experiment Station 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 29.

Hybrids frequently used by the industry have been used as check entries since 1975. They are indicated in the trials as SDAES Check 1, 4, 10, etc. The identities of the checks are as follows:

|                          |                         |
|--------------------------|-------------------------|
| Check 1 = B73 x Mo17Ht   | Check 10 = A632 x W153R |
| Check 4 = W64Ht x W117Ht | Check 11 = A554 x CM105 |
| Check 9 = Mo17 x A634    |                         |

Table 2. Laboratory Analysis, Soil Classification and Fertilizer Applied to the 1986 Corn Performance Trials.

| Area    | Soil Classification | % O.M. | % P K |      | pH  | Preparation and method      | pounds/A |    |    |
|---------|---------------------|--------|-------|------|-----|-----------------------------|----------|----|----|
|         |                     |        | lb/A  | lb/A |     |                             | N        | P  | K  |
| C1-dry  | Beotia SiCl         | 2.8    | 26    | 395  | 7.6 | Disced and ridged(soybeans) | 160      | 40 | 0  |
| C1-irr. | Beotia SiCl         | 2.8    | 26    | 395  | 7.6 | Disced and ridged           | 160      | 40 | 0  |
| C2      | Highmore SiL        | 3.2    | 67    | 990  | 6.8 | Chiseled & disced(soybeans) | 7        | 21 | 7  |
| D1      | Forman SiCl         | 3.2    | 14    | 185  | 6.5 | Chiseled and disced         | 55       | 30 | 0  |
| D3      | Lamour SiL          | 3.0    | 51    | 185  | 6.0 | Plowed and disced           | 80       | 30 | 20 |
| E       | Egan SiL            | 3.0    | 104   | 1370 | 6.6 | Plowed and disced           | 160      | 60 | 40 |

Table 3. Temperature and Precipitation Data for the 1986 Corn Performance Trials, South Dakota.

| Location            | Type of Data                    | Months of |      |      |        |       |      | Total |
|---------------------|---------------------------------|-----------|------|------|--------|-------|------|-------|
|                     |                                 | May       | June | July | August | Sept. | Oct. |       |
| Brookings<br>2 NE   | Precip. (inches)                | 3.72      | 4.42 | 3.71 | 3.43   | 7.67  | 0.38 | 23.33 |
|                     | Temp. (mean)                    | 56.2      | 67.0 | 71.3 | 63.4   | 57.2  | 47.1 |       |
|                     | Mean Departure                  | +0.2      | +1.4 | +0.6 | -5.2   | -1.1  | 0.0  |       |
|                     | Days 90 F. +                    | --        | 02   | 04   | --     | --    | --   |       |
|                     | First freeze - 28; October 9    |           |      |      |        |       |      |       |
| Centerville<br>6 SE | Precip. (inches)                | 4.44      | 3.38 | 2.31 | 2.68   | 5.26  | 1.69 | 19.76 |
|                     | Temp. (mean)                    | 58.8      | 70.4 | 73.9 | 65.3   | 59.4  | 50.3 |       |
|                     | Mean departure                  | -1.5      | +0.2 | -1.0 | -7.5   | -3.5  | -1.3 |       |
|                     | Days 90 F. +                    | --        | 04   | 12   | 02     | --    | --   |       |
|                     | First freeze - 27; September 7  |           |      |      |        |       |      |       |
| Pickstown           | Precip. (inches)                | 3.41      | 6.66 | 2.37 | 1.86   | 6.60  | 1.48 | 22.38 |
|                     | Temp. (mean)                    | 60.3      | 71.9 | 76.6 | 69.4   | 61.4  | 51.5 |       |
|                     | Mean departure                  | +0.1      | +1.7 | +0.3 | -4.7   | -6.9  | -1.3 |       |
|                     | Days 90 F. +                    | --        | 07   | 11   | 04     | --    | --   |       |
|                     | First freeze - 28; October 12   |           |      |      |        |       |      |       |
| Redfield<br>6 E     | Precip. (inches)                | 3.92      | 3.06 | 2.19 | 4.09   | 4.70  | 0.48 | 18.44 |
|                     | Temp. (mean)                    | 57.5      | 68.5 | 73.1 | 66.8   | 58.5  | 47.4 |       |
|                     | Mean departure                  | +0.3      | +1.7 | 0.0  | -4.7   | -2.2  | -1.1 |       |
|                     | Days 90 F. +                    | --        | 03   | 05   | 01     | --    | --   |       |
|                     | First freeze - 29; September 24 |           |      |      |        |       |      |       |
| Milbank<br>2 SSW    | Precip. (inches)                | 3.13      | 2.39 | 5.60 | 2.06   | 4.23  | 0.26 | 17.67 |
|                     | Temp. (mean)                    | 57.4      | 68.1 | 72.2 | 65.4   | 58.4  | 47.7 |       |
|                     | Mean Departure                  | -0.4      | +0.7 | -0.3 | -5.5   | -2.4  | -1.9 |       |
|                     | Days 90 F. +                    | --        | 04   | 04   | --     | --    | --   |       |
|                     | First freeze - 26; October 9    |           |      |      |        |       |      |       |

Changes occur from time to time but the checks are maintained to establish a several-year average before another might be substituted.

#### Experimental Procedure

Entries included in each trial were seeded in four or more replications. Two population levels were included at sites where climatic conditions are generally 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 plot size and number of replications. The plot size, populations, and related data are presented in Table 4.

Recommended insecticides were used at all locations for corn rootworm control. The product used depended upon prior history of the field and insecticide used in 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 the single-row 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 and moist, favoring rapid germination. Stands in some of the trials were below desired population levels because of the excess moisture conditions during June or high-velocity winds.

Table 4. Field Methods

| Area       | Table No. | Number of Replications Harvested | Final Population Obtained | Row Description |               |             |
|------------|-----------|----------------------------------|---------------------------|-----------------|---------------|-------------|
|            |           |                                  |                           | Number of       | Width, inches | Length feet |
| C1-D early | 22        | 4                                | 16,260                    | 1               | 30            | 32          |
| C1-D late  | 24        | 4                                | 16,144                    | 1               | 30            | 32          |
| C1-I early | 26        | 2                                | 30,528                    | 1               | 30            | 26          |
| C1-I early | 26        | 2                                | 34,117                    | 1               | 30            | 26          |
| C1-I late  | 28        | 2                                | 28,481                    | 1               | 30            | 26          |
| C1-I late  | 28        | 2                                | 34,439                    | 1               | 30            | 26          |
| C2-early   | 18        | 4                                | 16,441                    | 1               | 30            | 32          |
| C2-late    | 20        | 4                                | 16,182                    | 1               | 30            | 32          |
| D1-early   | 6         | 4                                | 19,950                    | 1               | 30            | 32          |
| D1-late    | 7         | 4                                | 19,997                    | 1               | 30            | 32          |
| D3-early   | 11        | 2                                | 14,783                    | 1               | 36            | 32          |
| D3-early   | 11        | 2                                | 18,589                    | 1               | 36            | 32          |
| D3-late    | 12        | 2                                | 15,323                    | 1               | 36            | 32          |
| D3-late    | 12        | 2                                | 18,535                    | 1               | 36            | 32          |
| E-early    | 14        | 2                                | 17,140                    | 1               | 30            | 32          |
| E-early    | 14        | 2                                | 20,615                    | 1               | 30            | 32          |
| E-late     | 15        | 2                                | 17,044                    | 1               | 30            | 32          |
| E-late     | 15        | 2                                | 21,048                    | 1               | 30            | 32          |

#### Measurements of Performance

Yield. The yield reported for each hybrid is the average obtained from the yield weights of all replications, expressed as 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, due in part to the damage caused by the high-velocity wind damage. Population differences were not significantly different but the higher populations were better.

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 bu. #2 shelled corn = 54 lb.: 1 lb. = .454 kilograms; 1 hectare = 2.471 acres; so  $54 \times .454 \times 2.471 = 60.6 \times B/A =$  kilograms per hectare.
- II. Or, assuming a yield of 60.6 B/A from the tables;
  - Step 1 =  $60.6 \text{ B/A} \times 54 \text{ lb/B} = 3272 \text{ lb/acre.}$
  - Step 2 =  $3272 \text{ lb/acre} \times 1.121 = 3668 \text{ kilograms/hectare or}$   
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 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 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. 1986 CORN PERFORMANCE TRIAL, AREA D1(EARLY), JOHN HEATON FARM, GARY, SD

| BRAND AND VARIETY    | TYPE AND CROSS | YIELD B/A | PCT ROOT LODGED | PCT STALK LODGED | PCT EARS DROPPED | PERCENT MOISTURE | PERFORMANCE SCORE | RATING |
|----------------------|----------------|-----------|-----------------|------------------|------------------|------------------|-------------------|--------|
| ASGRGW/O'S GOLD 480  | E 2X           | 93.5      | 0.0             | 5.8              | 0.0              | 21.8             | 1                 |        |
| PRIDE EX99           | E 2X           | 90.2      | 0.0             | 6.8              | 0.0              | 20.1             | 2                 |        |
| TOP FARM SX1195      | E 2X           | 90.0      | 0.0             | 14.3             | 0.0              | 19.2             | 3                 |        |
| PAG 223229           | E 2X           | 86.8      | 0.0             | 16.7             | 0.0              | 22.0             | 4                 |        |
| INTERSTATE 453       | E 2X           | 83.1      | 0.0             | 22.5             | 0.0              | 18.6             | 5                 |        |
| KING K4422           | M 2X           | 81.6      | 0.0             | 5.9              | 0.0              | 22.4             | 6                 |        |
| PIIONEER 3737        | E 2X           | 78.2      | 0.0             | 4.2              | 0.0              | 21.2             | 7                 |        |
| SUPERCROST 1989      | E 2X           | 76.3      | 0.0             | 10.0             | 0.0              | 24.2             | 13                |        |
| SEEDTEC KX-3400      | M 2X           | 76.1      | 0.0             | 3.3              | 0.0              | 18.8             | 8                 |        |
| SIGCO 1701           | M 2X           | 75.9      | 0.0             | 7.5              | 0.0              | 24.6             | 14                |        |
| HORIZON 4090         | E 2X           | 75.5      | 0.0             | 14.3             | 0.0              | 18.8             | 9                 |        |
| TCP FARM SX1193      | E 2X           | 73.5      | 0.0             | 5.8              | 0.0              | 20.7             | 11                |        |
| PIIONEER 3901        | E 2X           | 73.3      | 0.0             | 2.5              | 0.0              | 21.8             | 12                |        |
| SIGCO 270-2          | M 2X           | 73.3      | 0.0             | 5.8              | 0.0              | 23.3             | 17                |        |
| PIONEER 3790         | E 2X           | 72.9      | 0.0             | 6.7              | 0.0              | 19.1             | 10                |        |
| LYNKS LX 4101        | E 2X           | 72.2      | 0.0             | 15.0             | 0.0              | 23.6             | 23                |        |
| PAYCO SX 342         | E 2X           | 71.8      | 0.0             | 5.9              | 0.0              | 19.2             | 15                |        |
| KELTGEN K545         | E 2X           | 71.2      | 0.0             | 7.5              | 0.0              | 19.3             | 18                |        |
| TERNING SPRINT       | E 2X           | 71.1      | 0.0             | 4.2              | 0.0              | 19.1             | 16                |        |
| WAHLGREN CL-475      | M 2X           | 70.8      | 0.0             | 12.8             | 0.0              | 20.1             | 21                |        |
| DEKALB DK447         | E 2X           | 70.6      | 0.0             | 3.3              | 0.0              | 21.3             | 20                |        |
| SEEDTEC 7931         | M 2X           | 70.0      | 0.0             | 4.4              | 0.0              | 18.6             | 19                |        |
| PAG SX 160           | E 2X           | 69.4      | 0.0             | 5.8              | 0.0              | 21.9             | 22                |        |
| ASGRGW/O'S GOLD 2330 | E 2X           | 69.0      | 0.0             | 14.2             | 0.0              | 20.0             | 25                |        |
| SEEDTEC 7971         | M 2X           | 68.5      | 0.0             | 13.3             | 0.0              | 19.3             | 24                |        |
| JACQUES 4650         | E 2X           | 67.9      | 0.0             | 10.0             | 0.0              | 22.7             | 28                |        |
| KELTGEN K5920        | E 2X           | 66.7      | 0.0             | 12.7             | 0.0              | 18.3             | 26                |        |
| KELTGEN K595         | M 2X           | 66.2      | 0.0             | 12.5             | 0.0              | 22.4             | 32                |        |
| STAUFFER S3303       | E 2X           | 66.1      | 0.0             | 15.0             | 0.0              | 18.6             | 29                |        |
| PAYCO SX 431         | E 2X           | 66.1      | 0.0             | 11.9             | 0.0              | 18.5             | 27                |        |
| JACQUES 4700         | E 2X           | 65.6      | 0.0             | 10.7             | 0.0              | 19.6             | 30                |        |
| STAUFFER S3306       | M 2X           | 65.6      | 0.0             | 14.4             | 0.0              | 22.0             | 33                |        |
| LYNKS LX 3970        | E 2X           | 64.5      | 0.0             | 19.2             | 0.0              | 19.5             | 35                |        |
| LYNKS LX 4084        | E 2X           | 64.3      | 0.0             | 3.3              | 0.0              | 24.5             | 34                |        |
| SDAES CHECK 11       | E 2X           | 63.8      | 0.0             | 5.9              | 0.0              | 19.2             | 31                |        |
| TERNING PREMIER      | M 2X           | 61.9      | 0.0             | 11.9             | 0.0              | 19.1             | 36                |        |
| BETAGOLD INGRID      | E 2X           | 60.7      | 0.0             | 19.2             | 0.0              | 19.4             | 41                |        |
| KING K1184           | E 2X           | 60.2      | 0.0             | 3.3              | 0.0              | 20.0             | 37                |        |
| CENEX 2093           | M 2X           | 60.1      | 0.0             | 5.3              | 0.0              | 19.4             | 38                |        |
| PAYCO SX 500         | E 2X           | 59.5      | 0.0             | 15.1             | 0.0              | 18.5             | 40                |        |
| CARGILL 859          | E 2X           | 59.4      | 0.0             | 20.3             | 0.0              | 22.4             | 45                |        |
| CARGILL 839          | E 2X           | 59.0      | 0.0             | 12.5             | 0.0              | 21.8             | 43                |        |
| KING K2204           | E 2X           | 57.9      | 0.0             | 5.0              | 0.0              | 19.2             | 39                |        |
| DEKALB DK484         | E 2X           | 56.8      | 0.0             | 10.8             | 0.0              | 21.5             | 44                |        |
| GOLDEN VALLEY 2500   | M 2X           | 56.8      | 0.0             | 5.1              | 0.0              | 20.4             | 42                |        |
| SDAES CHECK 10       | E 2X           | 55.8      | 0.0             | 12.5             | 0.0              | 22.1             | 47                |        |
| SDAES CHECK 4        | E 2X           | 55.0      | 0.0             | 4.2              | 0.0              | 22.0             | 46                |        |
| GOLDEN VALLEY 344    | M 3X           | 52.5      | 0.0             | 9.2              | 0.0              | 19.8             | 48                |        |
| TOP FARM SX1094      | E 2X           | 51.7      | 0.0             | 15.0             | 0.0              | 20.1             | 49                |        |
| KING K2203           | E 2X           | 50.1      | 0.0             | 15.0             | 0.0              | 20.8             | 52                |        |
| CENEX 2096           | M 2X           | 48.5      | 0.0             | 7.5              | 0.0              | 20.0             | 50                |        |
| CENEX 2085           | E 2X           | 48.0      | 0.0             | 8.3              | 0.0              | 19.3             | 51                |        |
| GOLDEN VALLEY 354    | M 3X           | 43.8      | 0.0             | 5.0              | 0.0              | 20.1             | 53                |        |
| PAYCO SX 599         | E 2X           | 41.6      | 0.0             | 11.8             | 0.0              | 20.3             | 54                |        |
| INTERSTATE 343       | E 2X           | 41.6      | 0.0             | 26.1             | 0.0              | 20.3             | 56                |        |
| CARGILL 842          | E 2X           | 40.1      | 0.0             | 11.7             | 0.0              | 22.0             | 55                |        |
| MEANS                |                | 65.8      |                 | 10.2             |                  | 20.5             |                   |        |
| LSD (.05)            |                | 23.1      |                 | CV - %           |                  | 25.2             |                   |        |

TABLE 6. 1986 CORN PERFORMANCE TRIAL, AREA D1(LATE), JOHN HEATON FARM, GARY, SD

| BRAND AND VARIETY | TYPE AND CROSS |    | YIELD B/A | PCT ROOT LODGED | PCT STALK LODGED | PCT EARS DROPPED | PERCENT MOISTURE | PERFORMANCE SCORE RATING |
|-------------------|----------------|----|-----------|-----------------|------------------|------------------|------------------|--------------------------|
|                   |                |    |           |                 |                  |                  |                  |                          |
| PRIDE 4422        | M              | 2X | 102.6     | 0.0             | 5.8              | 0.0              | 21.2             | 1                        |
| TOP FARM SX1099   | M              | 2X | 99.4      | 0.0             | 0.8              | 0.0              | 21.2             | 2                        |
| PIONEER 3732      | M              | 2X | 94.3      | 0.0             | 8.3              | 0.0              | 23.6             | 5                        |
| STAUFFER S4502    | M              | 2X | 93.3      | 0.0             | 9.2              | 0.0              | 18.9             | 3                        |
| KING K416         | L              | 2X | 92.0      | 0.0             | 7.5              | 0.0              | 19.8             | 4                        |
| KELTGEN KS1C1C    | M              | 2X | 91.7      | 0.0             | 6.8              | 0.0              | 21.6             | 6                        |
| PIONEER 3704      | M              | 2X | 89.1      | 0.0             | 4.2              | 0.0              | 21.5             | 7                        |
| CARGILL 4167      | M              | 2X | 88.5      | 0.0             | 14.2             | 0.0              | 24.3             | 8                        |
| STAUFFER S4402    | M              | 2X | 83.8      | 0.0             | 13.3             | 0.0              | 19.7             | 9                        |
| TOP FARM SX1098   | M              | 2X | 82.8      | 0.0             | 10.8             | 0.0              | 20.1             | 10                       |
| CUSTOM CFS 53019  | M              | 2X | 81.9      | 0.0             | 11.7             | 0.0              | 23.2             | 14                       |
| HORIZON 202       | M              | 2X | 81.8      | 0.0             | 6.7              | 0.0              | 21.9             | 12                       |
| PAYCC SX 611      | M              | 2X | 81.7      | 0.0             | 6.7              | 0.0              | 21.2             | 11                       |
| DEKALB DK524      | M              | 2X | 80.8      | 0.0             | 5.9              | 0.0              | 23.4             | 13                       |
| HORIZON 6101      | M              | 2X | 79.0      | 0.0             | 6.7              | 0.0              | 24.3             | 15                       |
| PAG 133037        | M              | 2X | 78.2      | 0.0             | 6.7              | 0.0              | 23.8             | 16                       |
| STAUFFER S5050    | L              | 2X | 77.0      | 0.0             | 9.2              | 0.0              | 24.0             | 17                       |
| CARGILL 861       | M              | 2X | 76.3      | 0.0             | 12.5             | 0.0              | 22.3             | 18                       |
| CUSTOM CFS W53022 | M              | 2X | 74.7      | 0.0             | 11.4             | 0.0              | 22.0             | 19                       |
| DAHLGREN DC-498   | L              | 2X | 72.4      | 0.0             | 6.7              | 0.0              | 23.1             | 20                       |
| SIGCC 1605        | M              | 2X | 72.2      | 0.0             | 5.8              | 0.0              | 24.2             | 21                       |
| SUPERCROST 2989   | M              | 2X | 70.5      | 0.0             | 4.2              | 0.0              | 26.8             | 22                       |
| SDAES CHECK 9     | L              | 2X | 63.3      | 0.0             | 4.2              | 0.0              | 25.7             | 24                       |
| INTERSTATE 375    | M              | 2X | 62.5      | 0.0             | 9.2              | 0.0              | 21.5             | 23                       |
| MEANS             |                |    | 82.1      |                 | 7.8              |                  | 22.5             |                          |
| LSD (.05)         |                |    | N.S.      |                 | CV - %           |                  | 21.4             |                          |

TABLE 7. AREA D1(LATE) 1984-1986 YIELD, MOISTURE AND STALK LODGING AVERAGES OF CORN HYBRIDS

| 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 |
| CARGILL 861       |                 |      | 112  |                  |      | 6    |                  |      | 22   |
| DAHLGREN DC-498   |                 |      | 104  |                  |      | 4    |                  |      | 22   |
| PAYCC SX 611      |                 |      | 109  |                  |      | 4    |                  |      | 21   |
| PIONEER 3732      |                 | 102  | 120  |                  |      | 4    |                  | 23   | 23   |
| SDAES CHECK 9     |                 | 89   | 99   |                  |      | 3    |                  | 27   | 26   |
| SIGCC 1605        |                 |      | 99   |                  |      | 3    |                  |      | 24   |
| STAUFFER S4402    |                 | 101  | 113  |                  |      | 5    |                  | 20   | 20   |
| SUPERCROST 2989   |                 |      | 113  |                  |      | 2    |                  |      | 25   |
| TOP FARM SX1098   |                 |      | 108  |                  |      | 5    |                  |      | 19   |
| TOP FARM SX1099   |                 |      | 119  |                  |      | 1    |                  |      | 20   |

TABLE 8. AREA D1(EARLY) 1984-1986 YIELD, MOISTURE AND STALK LODGING AVERAGES OF CORN HYBRIDS

| 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 |
| ASGRGW/O'S GOLD 2330 |                 |      | 105  |                  |      | 7    |                  |      | 20   |
| ASGRGW/O'S GOLD 480  |                 |      | 117  |                  |      | 4    |                  |      | 20   |
| CARGILL 842          |                 |      | 97   |                  |      | 6    |                  |      | 22   |
| CARGILL 859          |                 |      | 104  |                  |      | 10   |                  |      | 21   |
| CENEX 2085           |                 |      | 82   |                  |      | 4    |                  |      | 18   |
| CENEX 2093           |                 |      | 93   |                  |      | 4    |                  |      | 18   |
| CENEX 2096           |                 | 89   | 102  |                  | 5    | 5    |                  | 20   | 19   |
| DAHLGREN DC-475      |                 |      | 87   |                  |      | 7    |                  |      | 18   |
| DEKALB DK484         |                 | 100  | 106  |                  | 4    | 5    |                  | 20   | 21   |
| GOLDEN VALLEY GV2500 |                 | 93   | 102  |                  | 2    | 3    |                  | 20   | 20   |
| GOLDEN VALLEY GV344  |                 |      | 84   |                  |      | 6    |                  |      | 19   |
| INTERSTATE 343       |                 |      | 90   |                  |      | 13   |                  |      | 19   |
| KELTGEN KS 85        |                 |      | 108  |                  |      | 5    |                  |      | 19   |
| KELTGEN KS 95        |                 | 92   | 104  |                  | 6    | 6    |                  | 22   | 21   |
| LYNKS LX 3970        |                 |      | 94   |                  |      | 10   |                  |      | 18   |
| LYNKS LX 4CE4        |                 |      | 97   |                  |      | 3    |                  |      | 21   |
| PAG SX180            |                 | 104  | 112  |                  | 2    | 3    |                  | 22   | 21   |
| PAYCC SX 342         |                 |      | 96   |                  |      | 4    |                  |      | 18   |
| PAYCO SX 431         |                 |      | 93   |                  |      | 6    |                  |      | 18   |
| PAYCO SX 500         |                 |      | 93   |                  |      | 8    |                  |      | 18   |
| PAYCO SX 549         |                 |      | 91   |                  |      | 6    |                  |      | 19   |
| PIONEER 3737         |                 | 98   | 114  |                  | 3    | 2    |                  | 20   | 20   |
| PIONEER 3901         |                 | 84   | 95   |                  | 2    | 2    |                  | 21   | 20   |
| SDAES CHECK 4        |                 | 86   | 100  |                  | 3    | 4    |                  | 21   | 21   |
| SDAES CHECK 10       |                 | 83   | 95   |                  | 7    | 6    |                  | 21   | 21   |
| SDAES CHECK 11       |                 | 72   | 90   |                  | 2    | 3    |                  | 19   | 18   |
| SEEDTEC 7931         |                 | 86   | 96   |                  | 3    | 3    |                  | 18   | 18   |
| SEEDTEC 7971         |                 | 87   | 98   |                  | 6    | 7    |                  | 19   | 19   |
| STAUFFER S3303       |                 |      | 101  |                  |      | 8    |                  |      | 18   |
| STAUFFER S3306       |                 | 97   | 104  |                  | 7    | 8    |                  | 21   | 21   |
| TOP FARM SX1193      |                 | 92   | 104  |                  | 3    | 3    |                  | 20   | 20   |

TABLE 9. AREA D3(EARLY) 1983-1986 YIELD, MOISTURE AND STALK LODGING AVERAGES OF CORN HYBRIDS

| 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 |
| CARGILL 842          |                 |      | 127  |                  |      | 1    |                  |      | 22   |
| CARGILL 859          |                 |      | 115  |                  |      | 2    |                  |      | 23   |
| CENEX 2093           |                 |      | 102  |                  |      | 3    |                  |      | 20   |
| CENEX 2096           |                 |      | 112  |                  |      | 3    |                  |      | 21   |
| CENEX 2098A          |                 |      | 116  |                  |      | 1    |                  |      | 22   |
| CURRY SCL418         |                 |      | 120  |                  |      | 1    |                  |      | 23   |
| DAHLGREN DC-498      |                 |      | 104  |                  |      | 1    |                  |      | 21   |
| DEKALB DK461         |                 |      | 133  |                  |      | 1    |                  |      | 21   |
| HCEGEMEYER SX2545    |                 |      | 127  |                  |      | 2    |                  |      | 19   |
| HCRIZON 4340         |                 |      | 119  |                  |      | 4    |                  |      | 19   |
| INTERSTATE 343       |                 |      | 95   |                  |      | 3    |                  |      | 20   |
| KELTGEN KS 95        | 114             | 114  | 121  | 5                | 2    | 1    | 20               | 20   | 21   |
| LAND O'LAKES 1096MR  |                 |      | 127  |                  |      | 0    |                  |      | 22   |
| MC CURDY 4737        |                 |      | 115  |                  |      | 4    |                  |      | 21   |
| NORTHROP KING PX9151 |                 | 111  | 118  |                  | 1    | 1    |                  | 19   | 19   |
| PAG SX180            |                 | 118  | 129  |                  | 2    | 0    |                  | 21   | 22   |
| PAYCC SX 431         |                 |      | 114  |                  |      | 1    |                  |      | 19   |
| PAYCC SX 500         |                 |      | 113  |                  |      | 3    |                  |      | 20   |
| PAYMASTER 1690       |                 |      | 118  |                  |      | 0    |                  |      | 22   |
| PIONEER 3737         |                 | 126  | 140  |                  | 3    | 1    |                  | 19   | 20   |
| PIONEER 3901         | 127             | 131  | 135  | 7                | 2    | 1    | 20               | 20   | 20   |
| PRIDE 1194           |                 |      | 120  |                  |      | 1    |                  |      | 19   |
| PRIDE 2216           |                 |      | 119  |                  |      | 0    |                  |      | 20   |
| SDAES CHECK 4        | 97              | 96   | 100  | 5                | 2    | 1    | 22               | 22   | 23   |
| SDAES CHECK 10       | 102             | 104  | 107  | 14               | 5    | 3    | 20               | 20   | 21   |
| SDAES CHECK 11       |                 | 95   | 104  |                  | 3    | 0    |                  | 19   | 19   |
| SEEDTEC KX3400       |                 |      | 116  |                  |      | 0    |                  |      | 20   |
| SEEDTEC KX4200       |                 |      | 98   |                  |      | 3    |                  |      | 21   |
| SEEDTEC KX5400       | 104             | 101  | 105  | 5                | 2    | 2    | 21               | 21   | 22   |
| TERRA TR3250         |                 |      | 114  |                  |      | 2    |                  |      | 20   |
| TERRA TR3100         |                 |      | 117  |                  |      | 1    |                  |      | 22   |
| TOP FARM SX1096      |                 | 99   | 102  |                  | 3    | 3    |                  | 20   | 20   |

TABLE 10. 1986 CORN PERFORMANCE TRIAL, AREA D3(EARLY), PLANT SCIENCE FARM, BROOKINGS, SD

| BRAND AND VARIETY    | TYPE AND CROSS | YIELD B/A | PCT ROOT LOGGED | PCT STALK LOGGED | PCT EARS DROPPED | PERCENT MOISTURE | PERFORMANCE SCORE RATING |
|----------------------|----------------|-----------|-----------------|------------------|------------------|------------------|--------------------------|
| PIGNEER 3737         | M 2X           | 142.7     | 0.0             | 1.3              | 0.0              | 20.5             | 1                        |
| PIGNEER 3901         | E 2X           | 137.2     | 0.0             | 2.5              | 0.0              | 20.5             | 2                        |
| SIGCO 1701           | M 2X           | 133.7     | 0.0             | 1.3              | 0.0              | 23.7             | 4                        |
| DEKALB DK-461        | E 2X           | 131.9     | 0.0             | 1.2              | 0.0              | 21.3             | 3                        |
| P-A-G SX180          | E 2X           | 129.4     | 0.0             | 0.0              | 0.0              | 22.5             | 5                        |
| CARGILL 842          | E 2X           | 126.9     | 0.0             | 2.4              | 0.0              | 22.9             | 7                        |
| CURRY SC1436         | E 2X           | 125.9     | 0.0             | 1.2              | 0.0              | 20.8             | 6                        |
| LYNKS LX4101         | E 2X           | 123.3     | 0.0             | 0.6              | 0.0              | 21.5             | 8                        |
| CARGILL 839          | E 2X           | 121.9     | 0.0             | 1.3              | 0.0              | 22.9             | 12                       |
| HOEGEMEYER SX2545    | E 2X           | 121.5     | 0.0             | 2.7              | 0.0              | 19.6             | 9                        |
| JACQUES 4700         | E 2X           | 120.6     | 0.0             | 2.8              | 0.0              | 20.5             | 11                       |
| ASGROW/O'S GOLD 2330 | M 2X           | 119.9     | 0.0             | 2.6              | 0.0              | 21.3             | 13                       |
| KING K2204           | E 2X           | 119.5     | 0.0             | 2.5              | 0.0              | 19.0             | 10                       |
| LANC O'LAKES 1096MR  | E 2X           | 119.4     | 0.0             | 0.7              | 0.0              | 22.1             | 15                       |
| HOEGEMEYER SX2566    | E 2X           | 119.1     | 0.0             | 4.2              | 0.0              | 24.3             | 19                       |
| SEEDTEC KX3400       | M 2X           | 117.8     | 0.0             | 0.7              | 0.0              | 20.1             | 14                       |
| SIGCO 1605           | M 2X           | 116.6     | 0.0             | 0.6              | 0.0              | 24.8             | 22                       |
| PRIDE 1194           | E 2X           | 116.0     | 0.0             | 1.3              | 0.0              | 18.4             | 16                       |
| KELTGEN K595         | M 2X           | 115.6     | 0.0             | 2.6              | 0.0              | 21.3             | 20                       |
| PRIDE EXP99          | E 2X           | 114.9     | 0.0             | 1.3              | 0.0              | 20.7             | 17                       |
| P-A-G 223229         | E 2X           | 113.5     | 0.0             | 1.3              | 0.0              | 23.2             | 23                       |
| DEKALB DK-415        | E 2X           | 113.3     | 0.0             | 0.0              | 0.0              | 19.7             | 18                       |
| PAYCO SX 431         | E 2X           | 112.6     | 0.0             | 0.7              | 0.0              | 20.0             | 21                       |
| MC CURDY 4737        | E 2X           | 110.6     | 0.0             | 7.5              | 0.0              | 21.8             | 29                       |
| LYNKS LX4C84         | E 2X           | 110.2     | 0.0             | 0.7              | 0.0              | 25.1             | 32                       |
| KELTGEN K51010       | M 2X           | 110.1     | 0.0             | 0.0              | 0.0              | 23.7             | 27                       |
| CENEX 2098A          | M 2X           | 109.9     | 0.0             | 2.1              | 0.0              | 22.1             | 24                       |
| KING K4422           | M 2X           | 108.3     | 0.0             | 0.7              | 0.0              | 22.2             | 31                       |
| CURRY SC1418         | E 2X           | 108.2     | 0.0             | 2.7              | 0.0              | 24.1             | 38                       |
| JACQUES 4750         | E 2X           | 107.8     | 0.0             | 1.4              | 0.0              | 21.0             | 28                       |
| SUPERCROST 1989      | E M2X          | 107.8     | 0.0             | 0.6              | 0.0              | 20.4             | 25                       |
| PAYMASTER 1690       | E 2X           | 107.4     | 0.0             | 0.7              | 0.0              | 22.7             | 33                       |
| TERNING SPRINT       | E 2X           | 107.2     | 0.0             | 4.3              | 0.0              | 18.9             | 26                       |
| TERNING ENCCRE       | L 2X           | 106.3     | 0.0             | 5.0              | 0.0              | 21.2             | 37                       |
| PRICE 2216           | E 2X           | 106.3     | 0.0             | 0.0              | 0.0              | 19.9             | 30                       |
| HORIZON 4290         | E 2X           | 105.7     | 0.0             | 5.6              | 0.0              | 19.5             | 35                       |
| PAYCO SX 599         | E 2X           | 105.6     | 0.0             | 3.5              | 0.0              | 20.6             | 36                       |
| TERRA TR 3100        | E 2X           | 105.3     | 0.0             | 2.9              | 0.0              | 22.3             | 41                       |
| BETAGOLD KRISTINE    | M 2X           | 104.9     | 0.0             | 1.3              | 0.0              | 21.3             | 39                       |
| KING K1184           | E 2X           | 104.7     | 0.0             | 2.5              | 0.0              | 19.5             | 34                       |
| CENEX 2096           | M 2X           | 104.4     | 0.0             | 5.3              | 0.0              | 21.8             | 43                       |
| PIGNEER 3790         | E 2X           | 102.7     | 0.0             | 2.0              | 0.0              | 19.1             | 40                       |
| CARGILL 859          | M 2X           | 102.5     | 0.0             | 3.8              | 0.0              | 23.3             | 48                       |
| SEEDTEC 7971         | M 2X           | 101.6     | 0.0             | 2.8              | 0.0              | 20.5             | 44                       |
| TOP FARM SX1195      | E 2X           | 101.4     | 0.0             | 5.5              | 0.0              | 19.8             | 45                       |
| SDAES CHECK 11       | E 2X           | 100.7     | 0.0             | 0.6              | 0.0              | 19.1             | 42                       |
| TERNING PREMIER      | M 2X           | 100.6     | 0.0             | 6.2              | 0.0              | 19.8             | 46                       |
| CUSTOM CFS W93022    | M 2X           | 100.1     | 0.0             | 2.2              | 0.0              | 21.2             | 47                       |
| TERRA TR 3050        | E 2X           | 98.1      | 0.0             | 3.3              | 0.0              | 19.6             | 50                       |
| SEEDTEC KX5400       | M 2X           | 97.7      | 0.0             | 4.6              | 0.0              | 22.0             | 52                       |
| NORTHROP KING PX9151 | E 2X           | 97.6      | 0.0             | 2.1              | 0.0              | 18.8             | 49                       |
| NORTHROP KING PX9161 | E 2X           | 95.6      | 0.0             | 5.2              | 0.0              | 19.3             | 51                       |
| DAHLGREN DC-498      | L 2X           | 94.3      | 0.0             | 2.3              | 0.0              | 21.3             | 54                       |
| PAYCO SX 500         | E 2X           | 93.6      | 0.0             | 4.2              | 0.0              | 19.8             | 53                       |
| INTERSTATE 343       | E 2X           | 93.8      | 0.0             | 5.9              | 0.0              | 20.8             | 55                       |
| CENEX 2093           | E 2X           | 89.0      | 0.0             | 4.8              | 0.0              | 20.3             | 56                       |
| SDAES CHECK 10       | E 2X           | 88.6      | 0.0             | 4.2              | 0.0              | 20.9             | 57                       |
| CROW'S 181           | E 2X           | 88.4      | 0.0             | 4.2              | 0.0              | 20.9             | 58                       |
| TOP FARM SX1094      | E 2X           | 88.2      | 0.0             | 13.5             | 0.0              | 20.6             | 60                       |
| SDAES CHECK 4        | E 2X           | 86.6      | 0.0             | 2.0              | 0.0              | 22.7             | 59                       |
| TOP FARM SX1096      | E 2X           | 80.3      | 0.0             | 10.7             | 0.0              | 19.3             | 61                       |
| SEEDTEC KX4200       | M 2X           | 76.4      | 0.0             | 5.9              | 0.0              | 22.1             | 62                       |
| MEANS                |                | 108.3     |                 | 2.9              |                  | 21.1             |                          |
| LSD (.05)            |                | 22.5      |                 | C.V. - %         |                  | 14.9             |                          |

TABLE 11. 1986 CORN PERFORMANCE TRIAL, AREA D3(LATE), PLANT SCIENCE FARM, BROOKINGS, SD

| BRAND AND VARIETY    | TYPE AND CROSS |    | YIELD B/A | PCT ROOT | PCT STALK | PCT EARS | PERCENT MOISTURE | PERFORMANCE SCORE RATING |
|----------------------|----------------|----|-----------|----------|-----------|----------|------------------|--------------------------|
|                      |                |    |           | LDGED    | LDGED     | DRCPED   |                  |                          |
| KELTGEN KS104        | M              | 2X | 146.3     | 0.0      | 1.2       | 0.0      | 24.7             | 1                        |
| CROW'S 344           | E              | 2X | 138.6     | 0.0      | 0.6       | 0.0      | 25.7             | 3                        |
| CARGILL 861          | E              | 2X | 138.5     | 0.0      | 2.6       | 0.0      | 22.6             | 2                        |
| LAND O' LAKES 845    | M              | 2X | 131.9     | 0.0      | 0.6       | 0.0      | 26.8             | 4                        |
| CROW'S 199           | E              | 2X | 128.8     | 0.0      | 0.6       | 0.0      | 24.2             | 5                        |
| PIONEER 3732         | M              | 2X | 128.0     | 0.0      | 1.2       | 0.0      | 23.7             | 6                        |
| P-A-G 133037         | M              | 2X | 127.5     | 0.0      | 0.6       | 0.0      | 26.3             | 8                        |
| CARGILL 4167         | M              | 2X | 126.8     | 0.0      | 0.6       | 0.0      | 25.3             | 7                        |
| STAUFFER S5722WX     | L              | 2X | 123.7     | 0.0      | 0.6       | 0.0      | 27.7             | 12                       |
| HORIZON 6101         | M              | 2X | 122.2     | 0.0      | 3.4       | 0.0      | 24.0             | 10                       |
| NORTHRUP KING PX9292 | M              | 2X | 121.2     | 0.0      | 0.7       | 0.0      | 21.5             | 9                        |
| PRIDE X1076          | M              | 2X | 120.9     | 0.0      | 1.3       | 0.0      | 23.5             | 11                       |
| PIONEER 3704         | M              | 2X | 118.4     | 0.0      | 0.6       | 0.0      | 23.4             | 13                       |
| KELTGEN KS1050       | M              | 2X | 115.9     | 0.0      | 2.4       | 0.0      | 26.3             | 14                       |
| MC CURDY 4945        | M              | 2X | 114.3     | 0.0      | 1.9       | 0.0      | 25.8             | 15                       |
| STAUFFER S5340       | M              | 2X | 114.1     | 0.0      | 1.3       | 0.0      | 27.7             | 17                       |
| KING K5574           | L              | 2X | 113.4     | 0.0      | 2.7       | 0.0      | 27.0             | 18                       |
| CENEX 2100           | M              | 2X | 109.8     | 0.0      | 1.3       | 0.0      | 21.8             | 16                       |
| SEEDTEC X72405       | L              | 2X | 109.0     | 0.0      | 3.4       | 0.0      | 26.2             | 22                       |
| PAYCO SX 611         | M              | 2X | 108.7     | 0.0      | 1.3       | 0.0      | 23.1             | 19                       |
| INTERSTATE 533       | L              | 2X | 107.3     | 0.0      | 1.3       | 0.0      | 22.4             | 20                       |
| NORTHRUP KING PX9283 | M              | 2X | 106.8     | 0.0      | 0.0       | 0.0      | 23.5             | 21                       |
| CROW'S 212           | E              | 2X | 105.4     | 0.0      | 2.3       | 0.0      | 26.1             | 26                       |
| CUSTOM CFS 93021     | M              | 2X | 105.2     | 0.0      | 2.1       | 0.0      | 24.0             | 23                       |
| PRIDE X1036          | M              | 2X | 103.9     | 0.0      | 1.3       | 0.0      | 23.3             | 24                       |
| KELTGEN KS1020       | M              | 2X | 103.1     | 0.0      | 3.8       | 0.0      | 26.3             | 27                       |
| TCP FARM SX1099      | M              | 2X | 102.6     | 0.0      | 2.5       | 0.0      | 22.7             | 25                       |
| CURRY SC1466         | L              | 2X | 102.2     | 0.0      | 2.0       | 0.0      | 28.7             | 29                       |
| MC CURDY 5950        | M              | 2X | 100.7     | 0.0      | 0.0       | 0.0      | 30.0             | 31                       |
| CROW'S 442           | M              | 2X | 99.9      | 0.0      | 3.1       | 0.0      | 27.7             | 30                       |
| PAYMASTER 6127       | L              | 2X | 99.1      | 0.0      | 2.8       | 0.0      | 29.3             | 33                       |
| LYNKS LX4132         | M              | 2X | 97.8      | 0.0      | 0.7       | 0.0      | 29.9             | 35                       |
| HORIZON 202          | M              | 2X | 97.6      | 0.0      | 2.0       | 0.0      | 21.8             | 28                       |
| P-A-G 130405         | M              | 2X | 96.0      | 0.0      | 2.7       | 0.0      | 29.5             | 36                       |
| TOP FARM SX1098      | M              | 2X | 92.8      | 0.0      | 3.0       | 0.0      | 22.2             | 32                       |
| TERRA TR 1040        | M              | 2X | 92.7      | 0.0      | 3.7       | 0.0      | 28.3             | 37                       |
| KING K416            | L              | 2X | 90.1      | 0.0      | 4.1       | 0.0      | 21.0             | 34                       |
| MC CURDY 5750        | M              | 2X | 89.2      | 0.0      | 7.7       | 0.0      | 28.6             | 40                       |
| DEKALB DK-524        | M              | 2X | 86.8      | 0.0      | 12.0      | 0.0      | 24.4             | 38                       |
| SDAES CHECK 9        | L              | 2X | 83.1      | 0.0      | 0.8       | 0.0      | 27.9             | 41                       |
| INTERSTATE 375       | M              | 2X | 82.5      | 0.0      | 5.8       | 0.0      | 22.4             | 39                       |
| STAUFFER S5650       | L              | 2X | 78.4      | 0.0      | 0.7       | 0.0      | 28.3             | 43                       |
| PAYCO 3X 64C         | M              | 3X | 75.7      | 0.0      | 5.4       | 0.0      | 23.4             | 42                       |
| DAHLGREN DC-515      | M              | 2X | 68.3      | 0.0      | 1.5       | 0.0      | 26.5             | 44                       |
| MEANS                |                |    | 107.4     |          | 2.3       |          | 25.4             |                          |
| LSD (.05)            |                |    | 22.9      |          |           |          | 15.2             |                          |

TABLE 12. AREA D3(LATE) 1983-1986 YIELD, MOISTURE AND STALK LODGING AVERAGES OF CORN HYBRIDS

| 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 |
| CARGILL 861       | 120             | 119  | 133  | 5                | 2    | 1    | 21               | 21   | 22   |
| DEKALB DK524      |                 |      | 111  |                  |      | 6    |                  |      | 23   |
| HORIZON 202       |                 | 107  | 114  |                  | 2    | 1    |                  | 21   | 22   |
| KELTGEN KS1320    | 110             | 108  | 115  | 4                | 3    | 2    | 24               | 25   | 26   |
| KELTGEN KS104     | 123             | 126  | 140  | 5                | 1    | 1    | 23               | 23   | 25   |
| KELTGEN KS1050    |                 | 116  | 120  |                  | 2    | 1    |                  | 23   | 25   |
| LYNKS LX4132      |                 |      | 111  |                  |      | 0    |                  |      | 28   |
| MC CURDY 4945     |                 | 121  | 131  |                  | 4    | 1    |                  | 24   | 25   |
| MC CURDY 5750     |                 | 106  | 111  |                  | 5    | 4    |                  | 26   | 27   |
| PIONEER 3732      | 122             | 125  | 132  | 5                | 1    | 1    | 21               | 22   | 23   |
| SDAES CHECK 9     | 93              | 89   | 102  | 1                | 1    | 0    | 26               | 27   | 28   |
| STAUFFER S5340    | 112             | 109  | 118  | 4                | 3    | 1    | 25               | 26   | 27   |
| TOP FARM SX1098   | 105             | 105  | 109  | 4                | 1    | 2    | 20               | 20   | 21   |
| TOP FARM SX1099   |                 |      | 123  |                  |      | 3    |                  |      | 21   |

TABLE 13. 1986 CORN PERFORMANCE TRIAL, AREA E(EARLY), SOUTHEAST EXPERIMENT FARM, BERESFORD, SD

| BRAND AND VARIETY | TYPE AND CRUSS | YIELD B/A | PCT ROOT LGDGED | PCT STALK LGDGED | PCT EARS DROPPED | PERCENT MOISTURE | PERFORMANCE SCORE RATING |
|-------------------|----------------|-----------|-----------------|------------------|------------------|------------------|--------------------------|
| PIONEER 3475      | M 2X           | 173.4     | 0.0             | 0.0              | 0.0              | 20.6             | 1                        |
| FONTANELLE 4280   | E 2X           | 173.0     | 0.0             | 0.0              | 0.0              | 23.8             | 2                        |
| CENEX 2107        | M 2X           | 167.3     | 0.0             | 0.0              | 0.0              | 20.7             | 3                        |
| NC+ 4505          | M 2X           | 166.3     | 0.0             | 0.7              | 0.0              | 24.1             | 6                        |
| SEEDTEC KX-5800   | L 2X           | 164.3     | 0.0             | 2.2              | 0.0              | 19.2             | 4                        |
| MC CURDY 5596     | M 2X           | 164.3     | 0.0             | 1.4              | 0.0              | 19.8             | 5                        |
| DEKALB DK524      | M 2X           | 159.6     | 0.0             | 1.4              | 0.0              | 20.6             | 7                        |
| NC+ 3884          | M 2X           | 158.5     | 0.0             | 1.4              | 0.0              | 20.0             | 8                        |
| LYNKS LX4235      | M 2X           | 157.4     | 0.0             | 0.7              | 0.0              | 21.1             | 9                        |
| PAG SX269         | M 2X           | 157.0     | 0.0             | 2.8              | 0.0              | 22.6             | 12                       |
| MC CURDY 575C     | M 2X           | 156.1     | 0.0             | 0.7              | 0.0              | 21.4             | 10                       |
| PAYMASTER 2950    | M 2X           | 155.9     | 0.0             | 4.3              | 0.0              | 20.9             | 11                       |
| CURRY SC1419      | M 2X           | 153.1     | 0.0             | 1.4              | 0.0              | 20.4             | 13                       |
| LAND O' LAKES 555 | M 2X           | 152.7     | 0.0             | 0.7              | 0.0              | 21.0             | 15                       |
| JACQUES 7750      | L 2X           | 152.1     | 0.0             | 0.7              | 0.0              | 20.4             | 14                       |
| PAG 130409        | M 2X           | 152.1     | 0.0             | 0.7              | 0.0              | 20.9             | 16                       |
| HORIZON 4139      | M 2X           | 151.6     | 0.0             | 1.4              | 0.0              | 20.3             | 17                       |
| PIONEER 3471      | M 2X           | 151.2     | 0.0             | 3.8              | 0.0              | 22.4             | 22                       |
| SDAES CHECK 4     | E 2X           | 149.2     | 0.0             | 0.7              | 0.0              | 20.0             | 19                       |
| SEEDTEC KX-5400   | L 2X           | 148.7     | 0.0             | 0.7              | 0.0              | 20.5             | 20                       |
| HOEGEMEYER SX2566 | E 2X           | 148.6     | 0.0             | 0.7              | 0.0              | 19.2             | 18                       |
| PIONEER 3713      | M 2X           | 147.1     | 0.0             | 0.0              | 0.0              | 20.4             | 21                       |
| PAYCO SA 872      | L 2X           | 146.7     | 0.0             | 1.4              | 0.0              | 20.9             | 23                       |
| CARGILL 889       | M 2X           | 145.2     | 0.0             | 0.7              | 0.0              | 20.3             | 24                       |
| CENEX 2110        | M 2X           | 144.9     | 0.0             | 0.7              | 0.0              | 20.3             | 25                       |
| MC CURDY 599C     | M 2X           | 143.2     | 0.0             | 0.7              | 0.0              | 21.7             | 27                       |
| HORIZON 202       | M 2X           | 140.8     | 0.0             | 0.0              | 0.0              | 18.1             | 26                       |
| JACQUES 7700      | L 2X           | 140.1     | 0.0             | 1.4              | 0.0              | 22.1             | 33                       |
| CROW'S 199        | M 2X           | 140.0     | 0.0             | 1.5              | 0.0              | 19.7             | 29                       |
| WILSON 1500B      | M 2X           | 139.9     | 0.0             | 0.0              | 0.0              | 20.3             | 31                       |
| NC+ 2561          | E 2X           | 139.6     | 0.0             | 1.4              | 0.0              | 19.5             | 30                       |
| TERNING ENCORE    | L 2X           | 138.5     | 0.0             | 3.8              | 0.0              | 18.5             | 32                       |
| KALTENBURG KX64   | M 2X           | 138.1     | 0.0             | 0.8              | 0.0              | 21.1             | 34                       |
| CROW'S 181        | E 2X           | 137.4     | 0.0             | 0.0              | 0.0              | 18.1             | 28                       |
| CUSTOM CFS W96010 | L 2X           | 135.9     | 0.0             | 2.1              | 0.0              | 23.3             | 43                       |
| CROW'S 344        | M 2X           | 135.7     | 0.0             | 3.9              | 0.0              | 20.8             | 39                       |
| DEKALB DK572      | M 2X           | 135.7     | 0.0             | 2.2              | 0.0              | 21.3             | 38                       |
| KELTGEN KS 1090   | L 2X           | 135.3     | 0.0             | 1.4              | 0.0              | 20.8             | 36                       |
| HOEGEMEYER SX2565 | M 2X           | 134.9     | 0.0             | 0.8              | 0.0              | 18.6             | 35                       |
| CUSTOM CFS 6203   | L 2X           | 134.4     | 0.0             | 0.7              | 0.0              | 20.9             | 40                       |
| KELTGEN KS 1070   | M 2X           | 133.5     | 0.0             | 2.2              | 0.0              | 20.2             | 41                       |
| GOLD STAR GS-108  | M 2X           | 132.0     | 0.0             | 0.7              | 0.0              | 20.7             | 44                       |
| INTERSTATE 533    | L 2X           | 131.5     | 0.0             | 0.7              | 0.0              | 18.3             | 37                       |
| TERRA TR 1040     | M 2X           | 130.9     | 0.0             | 1.4              | 0.0              | 21.2             | 45                       |
| BETAGOLD HEIDI    | M 2X           | 129.8     | 0.0             | 0.8              | 0.0              | 18.3             | 42                       |
| KING K4422        | L 2X           | 128.4     | 0.0             | 2.3              | 0.0              | 19.8             | 47                       |
| PAYCO SA 750      | M 2X           | 126.6     | 0.0             | 2.2              | 0.0              | 19.5             | 48                       |
| HOEGEMEYER SX2625 | M 2X           | 126.3     | 0.0             | 0.0              | 0.0              | 21.7             | 49                       |
| KING K416         | L 2X           | 125.4     | 0.0             | 0.0              | 0.0              | 18.0             | 46                       |
| SDAES CHECK 10    | E 2X           | 122.6     | 0.0             | 5.8              | 0.0              | 18.7             | 50                       |
| TERNING PREMIER   | M 2X           | 117.6     | 0.0             | 2.9              | 0.0              | 17.6             | 51                       |
| FONTANELLE 4253   | M 2X           | 115.4     | 0.0             | 0.0              | 0.0              | 23.2             | 52                       |
| KING K2204        | L 2X           | 85.3      | 0.0             | 2.2              | 0.0              | 18.0             | 53                       |
| PRIDE EXPL11      | M 2X           | 75.0      | 0.0             | 2.6              | 0.0              | 24.4             | 54                       |
| MEANS             |                | 141.6     |                 | 1.4              |                  | 20.5             |                          |
| LSD (.05)         |                | 23.2      |                 | C.V. - 8         |                  | 11.8             |                          |



TABLE 14. 1986 CORN PERFORMANCE TRIAL, AREA E(LATE), SOUTHEAST EXPERIMENT FARM, BERESFORD, SD

| BRAND AND VARIETY    | TYPE<br>AND<br>CROSS | YIELD<br>B/A | PCT<br>HGGT<br>LODGED | PCT<br>STALK<br>LODGED | PCT<br>EARS<br>DRIPPED | PERCENT<br>MOISTURE | PERFORMANCE<br>SCORE RATING |
|----------------------|----------------------|--------------|-----------------------|------------------------|------------------------|---------------------|-----------------------------|
| DEKALB T1130         | L 2X                 | 193.9        | 0.0                   | 0.0                    | 0.0                    | 22.6                | 1                           |
| CARGILL 937          | M 2X                 | 193.6        | 0.0                   | 0.7                    | 0.0                    | 24.4                | 2                           |
| PIONEER 3377         | L 2X                 | 187.1        | 0.0                   | 0.0                    | 0.0                    | 23.6                | 4                           |
| LYNKS LX4315         | L 2X                 | 187.0        | 0.0                   | 0.0                    | 0.0                    | 22.7                | 3                           |
| DEKALB DK636         | L 2X                 | 186.6        | 0.0                   | 1.4                    | 0.0                    | 24.4                | 5                           |
| PRIDE 7705           | L 2X                 | 183.7        | 0.0                   | 0.0                    | 0.0                    | 24.7                | 6                           |
| MC CURDY 7384        | L 2X                 | 181.3        | 0.0                   | 1.4                    | 0.0                    | 26.0                | 15                          |
| WILSON 1640          | L 2X                 | 180.9        | 0.0                   | 0.0                    | 0.0                    | 22.9                | 7                           |
| STAUFFER S6556       | L 2X                 | 180.4        | 0.0                   | 0.7                    | 0.0                    | 22.4                | 8                           |
| KELTGEN KS 114       | L 2X                 | 179.8        | 0.0                   | 1.4                    | 0.0                    | 24.3                | 12                          |
| PRIDE EXP117         | L 2X                 | 179.3        | 0.0                   | 0.0                    | 0.0                    | 24.4                | 11                          |
| NC+ 5111             | L 2X                 | 179.1        | 0.0                   | 0.0                    | 0.0                    | 23.6                | 9                           |
| KING K596            | L 2X                 | 178.5        | 0.0                   | 0.0                    | 0.0                    | 23.4                | 10                          |
| CUSTOM CFS 7501      | L 2X                 | 177.7        | 0.0                   | 0.0                    | 0.0                    | 24.0                | 14                          |
| PRIDE 6692           | L 2X                 | 176.4        | 0.0                   | 0.0                    | 0.0                    | 23.0                | 13                          |
| FONTANELLE 5230      | L 2X                 | 176.1        | 0.0                   | 0.7                    | 0.0                    | 24.2                | 19                          |
| STAUFFER S7751       | L 2X                 | 175.8        | 0.0                   | 0.0                    | 0.0                    | 24.5                | 21                          |
| SUPERCROST 4304      | L 2X                 | 174.9        | 0.0                   | 0.7                    | 0.0                    | 22.9                | 16                          |
| ASGROW/O'S GGLD 6882 | L 2X                 | 174.6        | 0.0                   | 0.7                    | 0.0                    | 22.8                | 17                          |
| WILSON 1700          | L 2X                 | 172.8        | 0.0                   | 0.7                    | 0.0                    | 25.1                | 30                          |
| PAYCO SX 860         | L 2X                 | 172.3        | 0.0                   | 0.0                    | 0.0                    | 23.3                | 22                          |
| SEEDTEC KX-6800      | L 2X                 | 172.1        | 0.0                   | 0.0                    | 0.0                    | 21.6                | 18                          |
| KELTGEN EXP. 192     | L 2X                 | 172.0        | 0.0                   | 0.0                    | 0.0                    | 23.7                | 23                          |
| PAYCO SX 925         | L 2X                 | 171.7        | 0.0                   | 0.7                    | 0.0                    | 24.4                | 31                          |
| CARGILL 6377         | L 2X                 | 171.4        | 0.0                   | 3.6                    | 0.0                    | 22.4                | 27                          |
| KALTENBURG KX77      | L 2X                 | 171.2        | 0.0                   | 0.0                    | 0.0                    | 26.3                | 36                          |
| PAYCO SX 847         | L 2X                 | 171.0        | 0.0                   | 0.7                    | 0.0                    | 22.9                | 25                          |
| PAYMASTER 6347       | L 2X                 | 170.9        | 0.0                   | 1.4                    | 0.0                    | 22.7                | 26                          |
| SUPERCROST 2589      | M 2X                 | 170.7        | 0.0                   | 0.7                    | 0.0                    | 20.8                | 20                          |
| PAG SX310            | L 2X                 | 170.0        | 0.0                   | 2.1                    | 0.0                    | 24.2                | 34                          |
| KALTENBURG KX74      | L 2X                 | 169.4        | 0.0                   | 0.8                    | 0.0                    | 23.4                | 33                          |
| NC+ 4050             | L 2X                 | 168.9        | 0.0                   | 0.7                    | 0.0                    | 22.9                | 32                          |
| CROW'S 444           | L 2X                 | 168.3        | 0.0                   | 0.7                    | 0.0                    | 21.1                | 24                          |
| INTERSTATE 593       | L 2X                 | 168.1        | 0.0                   | 0.0                    | 0.0                    | 21.6                | 29                          |
| KING K5574           | L 2X                 | 167.3        | 0.0                   | 0.0                    | 0.0                    | 21.0                | 28                          |
| KELTGEN KS 1150      | L 2X                 | 166.2        | 0.0                   | 2.1                    | 0.0                    | 25.3                | 40                          |
| CENEX 2114           | L 2X                 | 165.6        | 0.0                   | 0.7                    | 0.0                    | 23.1                | 38                          |
| TERRA EXP 108        | L 2X                 | 164.5        | 0.0                   | 0.0                    | 0.0                    | 21.8                | 35                          |
| CROW'S 442           | M 2X                 | 163.7        | 0.0                   | 0.7                    | 0.0                    | 22.3                | 39                          |
| INTERSTATE 603       | L 2X                 | 163.0        | 0.0                   | 2.0                    | 0.0                    | 20.7                | 37                          |
| LYNKS LX4304         | L 2X                 | 158.6        | 0.0                   | 0.7                    | 0.0                    | 21.9                | 41                          |
| PRIDE X1136          | L 2X                 | 158.4        | 0.0                   | 2.9                    | 0.0                    | 22.7                | 43                          |
| PAYMASTER 6127       | L 2X                 | 157.5        | 0.0                   | 1.4                    | 0.0                    | 22.1                | 42                          |
| PIONEER 3378         | L 2X                 | 156.4        | 0.0                   | 0.0                    | 0.0                    | 23.8                | 44                          |
| PAG 132701           | L 2X                 | 153.1        | 0.0                   | 0.7                    | 0.0                    | 23.4                | 47                          |
| CURRY SC1466         | L 2X                 | 153.1        | 0.0                   | 0.0                    | 0.0                    | 22.0                | 46                          |
| NORTHROP KING PX9470 | L 2X                 | 152.6        | 0.0                   | 0.7                    | 0.0                    | 21.3                | 45                          |
| GOLD STAR GS-110     | L 2X                 | 149.2        | 0.0                   | 4.5                    | 0.0                    | 21.6                | 48                          |
| TERRA TR 3203        | L 2X                 | 148.8        | 0.0                   | 0.8                    | 0.0                    | 23.7                | 49                          |
| SDAES CHECK 1        | L 2X                 | 147.5        | 0.0                   | 1.5                    | 0.0                    | 25.3                | 53                          |
| HCRIZON 4111         | L 2X                 | 145.5        | 0.0                   | 1.5                    | 0.0                    | 21.4                | 50                          |
| CARGILL 130405       | L 2X                 | 144.7        | 0.0                   | 1.4                    | 0.0                    | 21.6                | 52                          |
| STAUFFER S5340       | M 2X                 | 144.3        | 0.0                   | 0.0                    | 0.0                    | 21.7                | 51                          |
| DAHLGREN CC-535      | L 2X                 | 142.6        | 0.0                   | 1.6                    | 0.0                    | 22.1                | 54                          |
| SEEDTEC KX-60        | L 2X                 | 138.8        | 0.0                   | 2.3                    | 0.0                    | 21.0                | 56                          |
| CURRY SC1477         | L 2X                 | 137.5        | 0.0                   | 0.0                    | 0.0                    | 22.9                | 57                          |
| LAND O'LAKES 644     | L 2X                 | 137.4        | 0.0                   | 1.6                    | 0.0                    | 22.7                | 58                          |
| CARGILL 918          | L 2X                 | 136.8        | 0.0                   | 1.5                    | 0.0                    | 24.8                | 60                          |
| NORTHROP KING PX9385 | L 2X                 | 136.4        | 0.0                   | 0.0                    | 0.0                    | 19.6                | 55                          |
| SDAES CHECK 9        | L 2X                 | 132.6        | 0.0                   | 0.8                    | 0.0                    | 20.8                | 59                          |
| CURRY SC1482         | L 2X                 | 125.7        | 0.0                   | 1.4                    | 0.0                    | 24.3                | 61                          |
| MEANS                |                      | 164.8        |                       | 0.8                    |                        | 23.0                |                             |
| LSD (.05)            |                      | 20.5         |                       |                        | C.V. - %               | 9.7                 |                             |

TABLE 15. AREA E(EARLY) 1983-1986 YIELD, MOISTURE AND STALK LODGING AVERAGES OF CORN HYBRIDS

| 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 |
| CARGILL 889       |                 | 157  | 166  |                  | 5    | 4    |                  | 20   | 20   |
| CENEX 2107        |                 |      | 176  |                  |      | 9    |                  |      | 21   |
| CENEX 2110        |                 |      | 165  |                  |      | 1    |                  |      | 21   |
| HOEGEMEYER SX2625 |                 | 144  | 154  |                  | 9    | 0    |                  | 21   | 22   |
| KELTGEN KS1070    | 125             | 142  | 147  | 6                | 7    | 3    | 20               | 20   | 21   |
| KELTGEN KS1090    |                 | 150  | 161  |                  | 8    | 2    |                  | 20   | 21   |
| LAND C'LAKES 555  |                 |      | 158  |                  |      | 0    |                  |      | 21   |
| LYNKS LX4235      |                 | 157  | 167  |                  | 9    | 4    |                  | 21   | 21   |
| MC CURDY 5596     | 139             | 159  | 176  | 21               | 27   | 27   | 20               | 20   | 21   |
| MC CURDY 5750     |                 | 162  | 172  |                  | 6    | 2    |                  | 21   | 21   |
| PAG SX269         |                 |      | 172  |                  |      | 3    |                  |      | 22   |
| PIONEER 3475      |                 | 169  | 182  |                  | 7    | 4    |                  | 14   | 20   |
| PIONEER 3713      |                 |      | 159  |                  |      | 2    |                  |      | 20   |
| SDAES CHECK 10    |                 |      | 141  |                  |      | 7    |                  |      | 18   |
| SEEDTEC KX5800    |                 |      | 173  |                  |      | 6    |                  |      | 20   |
| SEEDTEC KX5900    |                 |      | 158  |                  |      | 3    |                  |      | 21   |
| WILSON 15008      |                 | 154  | 162  |                  | 7    | 1    |                  | 20   | 21   |

TABLE 16. AREA E(LATE) 1983-1986 YIELD, MOISTURE AND STALK LODGING AVERAGES OF CORN HYBRIDS

| 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/D GOLD SX6882 | 139             | 162  | 178  | 5                | 7    | 2    | 22               | 23   | 23   |
| CARGILL 937          |                 | 164  | 180  |                  | 7    | 1    |                  | 27   | 27   |
| CURRY SC1466         |                 | 163  | 171  |                  | 9    | 5    |                  | 21   | 22   |
| CURRY SC1477         |                 | 152  | 154  |                  | 3    | 1    |                  | 21   | 22   |
| DEKALB DK636         |                 |      | 179  |                  |      | 1    |                  |      | 25   |
| DEKALB T1100         | 140             | 169  | 184  | 3                | 4    | 5    | 22               | 22   | 23   |
| FONTANELLE 5230      |                 | 148  | 163  |                  | 7    | 1    |                  | 24   | 25   |
| KELTGEN KS 114       | 138             | 159  | 174  | 7                | 10   | 3    | 22               | 23   | 24   |
| KELTGEN KS115C       |                 |      | 166  |                  |      | 3    |                  |      | 26   |
| LYNKS LX4304         |                 |      | 163  |                  |      | 3    |                  |      | 22   |
| LYNKS LX4315         |                 |      | 183  |                  |      | 3    |                  |      | 24   |
| MC CURDY 7384        | 154             | 174  | 185  | 7                | 10   | 6    | 25               | 26   | 26   |
| PAG SX310            |                 |      | 168  |                  |      | 6    |                  |      | 26   |
| PAYCO SX 860         |                 |      | 171  |                  |      | 3    |                  |      | 23   |
| PAYCO SX 925         |                 |      | 172  |                  |      | 1    |                  |      | 25   |
| PIONEER 3377         | 151             | 170  | 176  | 8                | 11   | 7    | 23               | 23   | 24   |
| PIONEER 3378         |                 | 151  | 162  |                  | 13   | 2    |                  | 22   | 23   |
| PRIDE 6692           | 137             | 163  | 174  | 5                | 6    | 1    | 22               | 23   | 24   |
| PRIDE 7705           |                 | 159  | 171  |                  | 7    | 0    |                  | 25   | 25   |
| SDAES CHECK 1        | 128             | 145  | 156  | 9                | 11   | 3    | 24               | 25   | 26   |
| SDAES CHECK 9        | 130             | 145  | 151  | 11               | 14   | 4    | 20               | 21   | 21   |
| SEEDTEC KX60         |                 |      | 150  |                  |      | 10   |                  |      | 21   |
| SEEDTEC KX6800       | 124             | 142  | 149  | 11               | 15   | 11   | 21               | 20   | 21   |
| STAUFFER 5534C       | 136             | 157  | 164  | 6                | 7    | 1    | 20               | 21   | 22   |
| STAUFFER 56596       |                 |      | 174  |                  |      | 5    |                  |      | 23   |
| SUPERCROST 2989      |                 |      | 184  |                  |      | 4    |                  |      | 21   |
| SUPERCROST 4304      |                 |      | 176  |                  |      | 2    |                  |      | 24   |
| TERRA TR3203         |                 |      | 161  |                  |      | 2    |                  |      | 24   |
| WILSON 1700          |                 | 159  | 170  |                  | 7    | 1    |                  | 25   | 26   |

TABLE 17. 1986 CORN PERFORMANCE TRIAL, AREA C2(EARLY), JOHN BIDDLE FARM, GEDDES, SD

| BRAND AND VARIETY    | TYPE AND CROSS | YIELD B/A | PCT ROOT LODGED | PCT STALK LODGED | PCT EARS DRIPPED | PERCENT MOISTURE | PERFORMANCE SCORE RATING |
|----------------------|----------------|-----------|-----------------|------------------|------------------|------------------|--------------------------|
| KING K416            | M 2X           | 113.9     | 0.0             | 0.0              | 0.0              | 15.3             | 1                        |
| SEEDTEC KX-5800      | M 2X           | 111.0     | 0.0             | 0.0              | 0.0              | 18.0             | 2                        |
| PIONEER 3475         | M 2X           | 109.1     | 0.0             | 0.0              | 0.0              | 16.5             | 3                        |
| STAUFFER S5340       | L 2X           | 106.2     | 0.0             | 0.8              | 0.0              | 19.4             | 6                        |
| PIONEER 3471         | M 2X           | 105.3     | 0.0             | 0.8              | 0.0              | 20.1             | 8                        |
| PAG SX269            | M 2X           | 105.3     | 0.0             | 3.2              | 0.0              | 20.1             | 10                       |
| INTERSTATE 533       | L 2X           | 104.8     | 0.0             | 2.4              | 0.0              | 16.3             | 4                        |
| HOEGEMEYER SX2506    | E 2X           | 103.8     | 0.0             | 0.0              | 0.0              | 16.3             | 5                        |
| PIONEER 3713         | M 2X           | 103.2     | 0.0             | 0.0              | 0.0              | 18.0             | 9                        |
| ASGRGW/O'S GOLD 6880 | M 2X           | 103.1     | 0.0             | 2.5              | 0.0              | 16.6             | 7                        |
| DEKALB DK524         | M 2X           | 100.7     | 0.0             | 4.3              | 0.0              | 16.8             | 12                       |
| JACQUES 7750         | L 2X           | 100.4     | 0.0             | 4.8              | 0.0              | 17.8             | 17                       |
| KELTGEN KS1050       | M 2X           | 100.4     | 0.0             | 0.8              | 0.0              | 18.2             | 13                       |
| GOLD STAR GS-108     | M 2X           | 99.9      | 0.0             | 2.4              | 0.0              | 17.4             | 14                       |
| LYNKS LX4235         | M 2X           | 99.6      | 0.0             | 0.0              | 0.0              | 18.3             | 16                       |
| CENEX 2107           | M 2X           | 99.0      | 0.0             | 0.0              | 0.0              | 17.4             | 15                       |
| WILSON 1100B         | E 2X           | 98.9      | 0.0             | 1.7              | 0.0              | 17.8             | 19                       |
| KING K2204           | E 2X           | 98.6      | 0.0             | 0.0              | 0.0              | 14.9             | 11                       |
| KELTGEN KS1070       | M 2X           | 98.0      | 0.0             | 0.8              | 0.0              | 18.1             | 22                       |
| JACQUES 7700         | L 2X           | 97.2      | 0.0             | 1.7              | 0.0              | 18.8             | 26                       |
| PRIDE 5556           | M 2X           | 97.1      | 0.0             | 0.8              | 0.0              | 16.9             | 23                       |
| CROW'S 199           | E 2X           | 96.9      | 0.0             | 0.8              | 0.0              | 16.4             | 21                       |
| TERNING ENCORE       | L 2X           | 96.5      | 0.0             | 1.7              | 0.0              | 16.0             | 24                       |
| TOP FARM SX104       | M 2X           | 96.4      | 0.0             | 0.8              | 0.0              | 15.7             | 20                       |
| KING K4422           | M 2X           | 96.3      | 0.0             | 0.0              | 0.0              | 14.9             | 18                       |
| KELTGEN EXP.142      | L 2X           | 96.3      | 0.0             | 3.3              | 0.0              | 16.3             | 25                       |
| SEEDTEC KX-5900      | L 2X           | 95.1      | 0.0             | 0.8              | 0.0              | 17.7             | 27                       |
| WILSON 1500B         | M 2X           | 93.3      | 0.0             | 0.8              | 0.0              | 19.0             | 31                       |
| CARGILL 874          | M 2X           | 93.2      | 0.0             | 3.3              | 0.0              | 16.8             | 28                       |
| CROW'S 212           | E 2X           | 91.3      | 0.0             | 2.4              | 0.0              | 18.7             | 36                       |
| GOLD STAR GS-105     | M 2X           | 91.3      | 0.0             | 0.8              | 0.0              | 15.5             | 29                       |
| SDAES CHECK 10       | E 2X           | 91.2      | 0.0             | 3.3              | 0.0              | 15.2             | 30                       |
| SDAES CHECK 4        | E 2X           | 91.1      | 0.0             | 2.4              | 0.0              | 17.4             | 34                       |
| CENEX 2100           | M 2X           | 91.1      | 0.0             | 2.4              | 0.0              | 15.8             | 32                       |
| CROW'S 181           | E 2X           | 90.7      | 0.0             | 3.2              | 0.0              | 15.4             | 33                       |
| PAG 132701           | L 2X           | 90.3      | 0.0             | 0.0              | 0.0              | 23.1             | 43                       |
| HORIZON 4111         | L 2X           | 89.5      | 0.0             | 2.5              | 0.0              | 18.3             | 39                       |
| DEKALB DK572         | M 2X           | 88.8      | 0.0             | 1.7              | 0.0              | 18.7             | 40                       |
| TOP FARM SX1099      | M 2X           | 88.7      | 0.0             | 0.8              | 0.0              | 15.5             | 35                       |
| GREEN ACRES 3000     | M 4X           | 88.5      | 0.0             | 0.8              | 0.0              | 22.9             | 44                       |
| HORIZON 4109         | M 2X           | 88.4      | 0.0             | 0.0              | 0.0              | 17.1             | 37                       |
| TERRA SEED TR 1040   | L 2X           | 88.3      | 0.0             | 0.8              | 0.0              | 18.8             | 41                       |
| HOEGEMEYER SX2625    | M 2X           | 88.1      | 0.0             | 1.6              | 0.0              | 18.3             | 42                       |
| CENEX 2106           | M 2X           | 87.1      | 0.0             | 0.8              | 0.0              | 15.4             | 38                       |
| CARGILL 893          | M 2X           | 84.9      | 0.0             | 0.0              | 0.0              | 22.0             | 46                       |
| CARGILL 889          | M 2X           | 82.2      | 0.0             | 0.8              | 0.0              | 17.4             | 45                       |
| GREEN ACRES 3017     | E 2X           | 72.2      | 0.0             | 1.7              | 0.0              | 22.3             | 47                       |
| PRIDE EXP111         | M 2X           | 55.5      | 0.0             | 0.0              | 0.0              | 21.5             | 48                       |
| MEANS                |                | 95.0      |                 | 1.4              |                  | 17.7             |                          |
| LSD (.05)            |                | 17.0      |                 | C.V. - %         |                  | 12.9             |                          |

TABLE 18. AREA C2(EARLY) 1983-1986 YIELD, MOISTURE AND STALK LODGING AVERAGES OF CORN HYBRIDS

| 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 |
| CARGILL 889       |                 |      | 108  |                  |      | 1    |                  |      | 21   |
| CARGILL 893       |                 |      | 118  |                  |      | 0    |                  |      | 22   |
| GREEN ACRES 3000  | 83              | 98   | 113  | 2                | 2    | 1    | 21               | 22   | 24   |
| HOEGEMEYER SX2625 |                 |      | 117  |                  |      | 2    |                  |      | 20   |
| KELTGEN KS1050    |                 | 109  | 120  |                  | 1    | 1    |                  | 18   | 19   |
| KELTGEN KS1070    | 91              | 104  | 122  | 1                | 2    | 1    | 18               | 18   | 19   |
| LYNKS LX4235      |                 |      | 127  |                  |      | 1    |                  |      | 19   |
| PIONEER 3475      |                 |      | 136  |                  |      | 0    |                  |      | 18   |
| PIONEER 3713      |                 |      | 122  |                  |      | 2    |                  |      | 18   |
| PRIDE 5556        |                 |      | 120  |                  |      | 1    |                  |      | 18   |
| SDAES CHECK 4     | 78              | 91   | 105  | 2                | 2    | 2    | 17               | 18   | 18   |
| SDAES CHECK 10    | 74              | 84   | 104  | 3                | 4    | 2    | 16               | 16   | 16   |
| SEEDTEC KX5800    | 86              | 107  | 133  | 3                | 3    | 2    | 18               | 18   | 19   |
| SEEDTEC KX5900    |                 |      | 122  |                  |      | 2    |                  |      | 19   |
| TOP FARM SX1099   |                 |      | 121  |                  |      | 0    |                  |      | 17   |
| WILSON 1100B      | 90              | 109  | 128  | 2                | 2    | 1    | 18               | 18   | 19   |
| WILSON 1500B      |                 |      | 125  |                  |      | 1    |                  |      | 20   |

TABLE 19. 1986 CORN PERFORMANCE TRIAL, AREA C2(LATE), JOHN BIDDLE FARM, GEDDES

| BRAND AND VARIETY    | TYPE AND CROSS | YIELD B/A | PCT         | PCT          | PCT          | PERCENT MOISTURE | PERFORMANCE SCORE RATING |
|----------------------|----------------|-----------|-------------|--------------|--------------|------------------|--------------------------|
|                      |                |           | ROOT LODGED | STALK LODGED | EARS DROPPED |                  |                          |
| KELTGEN KS1090       | L 2X           | 109.7     | 0.0         | 0.0          | 0.0          | 18.9             | 1                        |
| PRIDE 6656           | L 2X           | 109.4     | 0.0         | 0.0          | 0.0          | 19.3             | 3                        |
| SDAES CHECK 9        | L 2X           | 108.9     | 0.0         | 0.0          | 0.0          | 18.5             | 2                        |
| PAG SX310            | L 2X           | 108.6     | 0.0         | 3.3          | 0.0          | 22.6             | 6                        |
| KING K596            | L 2X           | 107.6     | 0.0         | 1.6          | 0.0          | 20.8             | 4                        |
| SEEDTEC KX-6800      | L 2X           | 104.0     | 0.0         | 0.0          | 0.0          | 18.5             | 7                        |
| TCP FARM SX104A      | L 2X           | 103.8     | 0.0         | 1.7          | 0.0          | 16.7             | 5                        |
| SEEDTEC KX-60        | L 2X           | 103.7     | 0.0         | 0.0          | 0.0          | 18.9             | 8                        |
| PAYMASTER 6347       | L 2X           | 103.7     | 0.0         | 1.6          | 0.0          | 20.5             | 10                       |
| CARGILL 6377         | L 2X           | 103.1     | 0.0         | 2.4          | 0.0          | 20.1             | 12                       |
| PIONEER 3378         | L 2X           | 102.9     | 0.0         | 0.8          | 0.0          | 21.7             | 14                       |
| PIONEER 3377         | L 2X           | 102.5     | 0.0         | 2.4          | 0.0          | 21.0             | 15                       |
| KING K5574           | L 2X           | 102.3     | 0.0         | 0.0          | 0.0          | 18.8             | 9                        |
| CARGILL 130409       | L 2X           | 101.0     | 0.0         | 0.0          | 0.0          | 19.3             | 13                       |
| KELTGEN KS1091       | L 2X           | 99.9      | 0.0         | 0.8          | 0.0          | 16.6             | 11                       |
| DEKALB DK636         | L 2X           | 99.5      | 0.0         | 0.0          | 0.0          | 24.5             | 19                       |
| WILSON 1640          | L 2X           | 97.5      | 0.0         | 0.0          | 0.0          | 20.2             | 18                       |
| NORTHROP KING PX9385 | L 2X           | 96.3      | 0.0         | 0.0          | 0.0          | 17.0             | 16                       |
| INTERSTATE 593       | L 2X           | 95.8      | 0.0         | 1.93         | 0.0          | 17.0             | 17                       |
| PAYMASTER 6127       | L 2X           | 92.7      | 0.0         | 2.5          | 0.0          | 19.6             | 21                       |
| CENEX 2110           | M 2X           | 92.1      | 0.0         | 0.8          | 0.0          | 18.6             | 20                       |
| NORTHROP KING PX9470 | L 2X           | 90.0      | 0.0         | 0.0          | 0.0          | 18.0             | 23                       |
| INTERSTATE 603       | L 2X           | 89.9      | 0.0         | 2.6          | 0.0          | 16.9             | 22                       |
| LYNKS LX4334         | L 2X           | 88.0      | 0.0         | 0.9          | 0.0          | 18.5             | 24                       |
| HOEGEMEYER SX2595    | M 2X           | 86.8      | 0.0         | 3.2          | 0.0          | 17.6             | 25                       |
| LYNKS LX4313         | L 2X           | 84.4      | 0.0         | 1.0          | 0.0          | 22.4             | 27                       |
| TOP FARM SX1104      | L 2X           | 81.3      | 0.0         | 3.2          | 0.0          | 15.8             | 26                       |
| DAHLGREN JC-535      | L 2X           | 80.3      | 0.0         | 1.0          | 0.0          | 21.4             | 28                       |
| TERRA SEED TR 3203   | L 2X           | 70.7      | 0.0         | 1.1          | 0.0          | 22.0             | 29                       |
| GREEN ACRES X7264    | L 4X           | 55.7      | 0.0         | 9.9          | 0.0          | 24.0             | 30                       |
| HORIZON 717          | L 2X           | 62.0      | 0.0         | 0.0          | 0.0          | 25.0             | 31                       |
| GREEN ACRES 745      | L 2X           | 52.8      | 0.0         | 8.0          | 0.0          | 26.1             | 32                       |
| MEANS                |                | 93.6      |             | 1.6          |              | 19.9             |                          |
| LSD (.05)            |                | 17.5      |             |              | C.V. - %     | 13.3             |                          |

TABLE 20. AREA C2(LATE) 1983-1986 YIELD, MOISTURE AND STALK LODGING AVERAGES OF CORN HYBRIDS

| 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 |
| CENEX 211C        |                 |      | 112  |                  |      | 1    |                  |      | 20   |
| DEKALB DK636      |                 |      | 123  |                  |      | 0    |                  |      | 27   |
| HOEGEMEYER SX2595 |                 | 98   | 115  |                  | 1    | 2    |                  | 18   | 19   |
| KELTGEN KS1090    |                 |      | 130  |                  |      | 0    |                  |      | 20   |
| PAG SX310         |                 |      | 124  |                  |      | 8    |                  |      | 24   |
| PIONEER 3377      | 87              | 100  | 113  | 2                | 2    | 2    | 21               | 21   | 23   |
| PIONEER 3378      |                 | 110  | 125  |                  | 1    | 0    |                  | 20   | 22   |
| PRIDE 6656        |                 |      | 122  |                  |      | 0    |                  |      | 20   |
| SDAES CHECK 9     | 90              | 105  | 126  | 1                | 1    | 1    | 18               | 19   | 20   |
| SEEDTEC KX60      |                 | 107  | 130  |                  | 1    | 0    |                  | 20   | 21   |
| SEEDTEC KX6800    |                 |      | 104  |                  |      | 4    |                  |      | 18   |
| TCP FARM SX1104   |                 | 97   | 106  |                  | 3    | 3    |                  | 16   | 16   |

TABLE 21. 1986 CORN PERFORMANCE TRIAL, AREA C1(EARLY-DRYLAND), JAMES VALLEY RESEARCH FARM, REDFIELD, SD

| BRAND AND VARIETY   | TYPE<br>AND<br>CROSS | YIELD<br>B/A | PCT<br>ROOT<br>LOGGED | PCT<br>STALK<br>LCOGEG | PCT<br>EARS<br>DROPPED | PERCENT<br>MOISTURE | PERFORMANCE<br>SCORE RATING |
|---------------------|----------------------|--------------|-----------------------|------------------------|------------------------|---------------------|-----------------------------|
| SIGCO 1701          | M 2X                 | 170.9        | 0.0                   | 0.8                    | 0.0                    | 26.6                | 2                           |
| PIONEER 3737        | M 2X                 | 168.7        | 0.0                   | 0.8                    | 0.0                    | 23.6                | 1                           |
| CARGILL 842         | E 2X                 | 166.7        | 0.0                   | 3.3                    | 0.0                    | 25.6                | 4                           |
| STAUFFER S3306      | M 2X                 | 163.9        | 0.0                   | 0.8                    | 0.0                    | 24.0                | 3                           |
| PIONEER 3704        | M 2X                 | 161.9        | 0.0                   | 0.0                    | 0.0                    | 23.4                | 5                           |
| KING K4422          | M 2X                 | 161.4        | 0.0                   | 3.3                    | 0.0                    | 23.1                | 7                           |
| HORIZON 202         | M 2X                 | 161.4        | 0.0                   | 0.0                    | 0.0                    | 23.5                | 6                           |
| TERRA SEED TR 1040  | M 2X                 | 160.5        | 0.0                   | 0.0                    | 0.0                    | 29.3                | 13                          |
| DEKALB DK498        | E 2X                 | 159.0        | 0.0                   | 1.7                    | 0.0                    | 24.9                | 8                           |
| HORIZON 6101        | M 2X                 | 158.7        | 0.0                   | 0.0                    | 0.0                    | 26.6                | 11                          |
| KELTGEN KS1020      | M 2X                 | 157.8        | 0.0                   | 0.0                    | 0.0                    | 27.8                | 14                          |
| PIONEER 3732        | M 2X                 | 157.3        | 0.0                   | 2.5                    | 0.0                    | 25.9                | 12                          |
| DEKALB DK435        | E 2X                 | 156.4        | 0.0                   | 4.2                    | 0.0                    | 22.1                | 9                           |
| KING K1184          | E 2X                 | 152.7        | 0.0                   | 2.5                    | 0.0                    | 20.4                | 10                          |
| CARGILL 859         | M 2X                 | 151.4        | 0.0                   | 2.5                    | 0.0                    | 25.3                | 18                          |
| PAG SX180           | E 2X                 | 151.2        | 0.0                   | 2.5                    | 0.0                    | 25.5                | 20                          |
| KELTGEN KS1010      | E 2X                 | 150.2        | 0.0                   | 2.5                    | 0.0                    | 26.4                | 22                          |
| INTERSTATE 343      | E 2X                 | 149.8        | 0.0                   | 2.5                    | 0.0                    | 22.5                | 15                          |
| ASGROW/D'S GOLD 480 | E 2X                 | 149.7        | 0.0                   | 1.7                    | 0.0                    | 22.8                | 16                          |
| CARGILL 839         | E 2X                 | 148.9        | 0.0                   | 4.2                    | 0.0                    | 25.0                | 23                          |
| PIONEER 3750        | E 2X                 | 146.6        | 0.0                   | 0.0                    | 0.0                    | 22.4                | 17                          |
| PRIDE 4422          | M 2X                 | 146.6        | 0.0                   | 0.0                    | 0.0                    | 23.9                | 21                          |
| PAYMASTER 1990      | M 2X                 | 145.9        | 0.0                   | 5.0                    | 0.0                    | 23.1                | 25                          |
| BETAGOLD INGRID     | E 2X                 | 145.4        | 0.0                   | 3.3                    | 0.0                    | 20.8                | 19                          |
| PRIDE X1036         | M 2X                 | 145.1        | 0.0                   | 0.0                    | 0.0                    | 24.6                | 26                          |
| TERRA SEED TR 3130  | E 2X                 | 144.3        | 0.0                   | 0.0                    | 0.0                    | 25.1                | 29                          |
| JACQUES 4700        | E 2X                 | 144.1        | 0.0                   | 7.5                    | 0.0                    | 20.3                | 24                          |
| CARGILL 829         | E 2X                 | 143.8        | 0.0                   | 4.2                    | 0.0                    | 24.6                | 32                          |
| TCP FARM SX104      | M 2X                 | 143.0        | 0.0                   | 0.8                    | 0.0                    | 23.7                | 28                          |
| PRIDE EXP99         | E 2X                 | 142.4        | 0.0                   | 4.2                    | 0.0                    | 24.0                | 34                          |
| PIONEER 3901        | E 2X                 | 142.2        | 0.0                   | 0.8                    | 0.0                    | 25.0                | 35                          |
| SUPERCROST 1989     | E 2X                 | 141.8        | 0.0                   | 0.0                    | 0.0                    | 24.5                | 33                          |
| STAUFFER S3303      | E 2X                 | 139.9        | 0.0                   | 5.0                    | 0.0                    | 20.5                | 31                          |
| PAG 223229          | E 2X                 | 139.8        | 0.0                   | 2.5                    | 0.0                    | 26.1                | 38                          |
| HORIZON 4090        | E 2X                 | 139.1        | 0.0                   | 2.5                    | 0.0                    | 20.4                | 30                          |
| SEEDTEC KX3400      | M 2X                 | 139.0        | 0.0                   | 0.8                    | 0.0                    | 20.2                | 27                          |
| TERRA SEED EXP 102  | E 2X                 | 138.2        | 0.0                   | 0.8                    | 0.0                    | 25.5                | 39                          |
| STAUFFER S4454MX    | M 2X                 | 137.7        | 0.0                   | 6.7                    | 0.0                    | 24.3                | 40                          |
| INTERSTATE 453      | M 2X                 | 137.2        | 0.0                   | 7.5                    | 0.0                    | 20.6                | 36                          |
| GENEX 2096          | M 2X                 | 136.7        | 0.0                   | 4.2                    | 0.0                    | 22.9                | 37                          |
| PAYMASTER 1690      | E 2X                 | 136.1        | 0.0                   | 5.8                    | 0.0                    | 24.2                | 41                          |
| CURRY SC1436        | E 2X                 | 135.3        | 0.0                   | 3.4                    | 0.0                    | 24.4                | 42                          |
| JACQUES 4650        | E 2X                 | 134.6        | 0.0                   | 2.5                    | 0.0                    | 24.9                | 43                          |
| SUPERCROST 1940     | E 2X                 | 133.0        | 0.0                   | 3.3                    | 0.0                    | 24.2                | 46                          |
| DAHLGREN DC-498     | L 2X                 | 132.6        | 0.0                   | 0.8                    | 0.0                    | 24.1                | 44                          |
| SDAES CHECK 10      | E 2X                 | 131.6        | 0.0                   | 12.0                   | 0.0                    | 22.0                | 48                          |
| TOP FARM SX1099     | M 2X                 | 131.6        | 0.0                   | 0.0                    | 0.0                    | 26.6                | 49                          |
| GENEX 2093          | E 2X                 | 127.3        | 0.0                   | 0.0                    | 0.0                    | 20.8                | 45                          |
| DAHLGREN DC-501     | M 3X                 | 126.6        | 0.0                   | 5.0                    | 0.0                    | 23.4                | 50                          |
| SEEDTEC KX4200      | M 2X                 | 126.3        | 0.0                   | 0.9                    | 0.0                    | 24.6                | 51                          |
| SEEDTEC 7931        | M 2X                 | 124.0        | 0.0                   | 11.3                   | 0.0                    | 20.8                | 52                          |
| BETAGOLD GRETAL     | E 2X                 | 123.3        | 0.0                   | 0.0                    | 0.0                    | 19.5                | 47                          |
| TERRA SEED TR 3050  | E 2X                 | 118.3        | 0.0                   | 4.2                    | 0.0                    | 22.1                | 53                          |
| KING K2204          | E 2X                 | 115.3        | 0.0                   | 1.7                    | 0.0                    | 21.1                | 54                          |
| SDAES CHECK 4       | E 2X                 | 99.8         | 0.0                   | 5.9                    | 0.0                    | 26.2                | 55                          |
| MEANS               |                      | 143.5        |                       | 2.7                    |                        | 23.7                |                             |
| LSD (.05)           |                      | 21.1         |                       |                        | C.V. - %               | 10.6                |                             |

TABLE 22. AREA C1(EARLY-DRYLAND) 1983-1986 YIELD, MOISTURE AND STALK LODGING AVERAGES OF CORN HYBRIDS

| 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 |
| CARGILL 829       |                 | 120  | 132  |                  | 6    | 2    |                  | 21   | 22   |
| CARGILL 839       |                 |      | 144  |                  |      | 2    |                  |      | 23   |
| CARGILL 842       |                 |      | 160  |                  |      | 6    |                  |      | 23   |
| CARGILL 859       |                 |      | 140  |                  |      | 4    |                  |      | 23   |
| CENEX 2092        |                 |      | 113  |                  |      | 1    |                  |      | 19   |
| CENEX 2096        |                 | 128  | 134  |                  | 3    | 3    |                  | 20   | 21   |
| DAHLGREN CC-498   |                 |      | 127  |                  |      | 1    |                  |      | 22   |
| DEKALB DK498      |                 |      | 147  |                  |      | 1    |                  |      | 23   |
| HORIZON 202       |                 | 136  | 144  |                  | 4    | 2    |                  | 20   | 21   |
| HORIZON 409G      |                 |      | 140  |                  |      | 3    |                  |      | 18   |
| KELTGEN KS1020    | 126             | 138  | 144  | 4                | 1    | 0    | 23               | 24   | 26   |
| PAG SX180         |                 | 129  | 143  |                  | 6    | 3    |                  | 21   | 23   |
| PAYMASTER 1690    |                 |      | 135  |                  |      | 4    |                  |      | 23   |
| PAYMASTER 1990    |                 | 137  | 144  |                  | 4    | 4    |                  | 20   | 21   |
| PIONEER 3732      | 126             | 142  | 150  | 4                | 2    | 1    | 21               | 23   | 24   |
| PIONEER 3737      |                 | 146  | 155  |                  | 4    | 1    |                  | 20   | 21   |
| PIONEER 3901      | 115             | 123  | 139  | 3                | 3    | 0    | 20               | 21   | 23   |
| PRIDE 4422        | 119             | 129  | 140  | 2                | 1    | 0    | 19               | 20   | 21   |
| SDAES CHECK 4     | 104             | 108  | 110  | 6                | 4    | 3    | 22               | 24   | 25   |
| SDAES CHECK 1C    | 104             | 110  | 121  | 10               | 11   | 8    | 19               | 20   | 20   |
| SEEDTEC KX3400    |                 |      | 125  |                  |      | 1    |                  |      | 19   |
| SEEDTEC KX4200    |                 |      | 126  |                  |      | 1    |                  |      | 22   |
| SEEDTEC 7931      |                 |      | 118  |                  |      | 6    |                  |      | 19   |
| STAUFFER S33C6    | 119             | 134  | 138  | 5                | 3    | 1    | 20               | 21   | 22   |
| SUPERCROST 1940   |                 | 125  | 133  |                  | 3    | 3    |                  | 20   | 21   |

TABLE 23. 1986 CORN PERFORMANCE TRIAL, AREA C1(LATE-DRYLAND), JAMES VALLEY RESEARCH FARM, REDFIELD, SD

| BRAND AND VARIETY | TYPE AND CROSS | YIELD B/A | PCT ROOT LODGED | PCT STALK LODGED | PCT EARS DROPPED | PERCENT MOISTURE | PERFORMANCE SCORE | RATING |
|-------------------|----------------|-----------|-----------------|------------------|------------------|------------------|-------------------|--------|
|                   |                |           |                 |                  |                  |                  |                   |        |
| KELTGEN EXP. 142  | M 2X           | 166.1     | 0.0             | 0.8              | 0.0              | 26.2             | 1                 |        |
| KING K5574        | L 2X           | 164.7     | 0.0             | 1.7              | 0.0              | 26.7             | 2                 |        |
| TOP FARM SX104A   | L 2X           | 162.3     | 0.0             | 7.6              | 0.0              | 27.8             | 3                 |        |
| PAG 133037        | M 2X           | 158.9     | 0.0             | 0.0              | 0.0              | 28.3             | 4                 |        |
| SEEDTEC KX5800    | L 2X           | 158.2     | 0.0             | 7.6              | 0.0              | 28.7             | 9                 |        |
| KELTGEN KS1050    | M 2X           | 156.6     | 0.0             | 3.4              | 0.0              | 27.1             | 5                 |        |
| STAUFFER S5750    | L 2X           | 156.4     | 0.0             | 0.0              | 0.0              | 29.2             | 8                 |        |
| SDAES CHECK 9     | L 2X           | 155.7     | 0.0             | 0.0              | 0.0              | 28.3             | 6                 |        |
| HORIZON 4109      | M 2X           | 154.7     | 0.0             | 0.0              | 0.0              | 29.9             | 11                |        |
| PRIDE X1076       | M 2X           | 153.0     | 0.0             | 1.7              | 0.0              | 26.2             | 7                 |        |
| SIGCO 1605        | M 2X           | 152.3     | 0.0             | 1.7              | 0.0              | 27.6             | 10                |        |
| DEKALB DK524      | M 2X           | 151.2     | 0.0             | 5.0              | 0.0              | 26.9             | 13                |        |
| KELTGEN KS1030    | M 2X           | 149.2     | 0.0             | 2.5              | 0.0              | 26.2             | 12                |        |
| KING K416         | M 2X           | 144.9     | 0.0             | 4.2              | 0.0              | 23.1             | 14                |        |
| CENEX 2100        | M 2X           | 142.8     | 0.0             | 3.3              | 0.0              | 23.4             | 15                |        |
| TCP FARM SX1104   | L 2X           | 140.3     | 0.0             | 1.7              | 0.0              | 25.6             | 16                |        |
| SEEDTEC X72405    | L 2X           | 139.3     | 0.0             | 1.7              | 0.0              | 26.3             | 17                |        |
| PRIDE X1066       | M 2X           | 138.4     | 0.0             | 0.0              | 0.0              | 26.7             | 19                |        |
| INTERSTATE 375    | M 2X           | 136.7     | 0.0             | 2.6              | 0.0              | 24.3             | 18                |        |
| CENEX 2106        | M 2X           | 132.4     | 0.0             | 1.7              | 0.0              | 23.8             | 20                |        |
| CARGILL 4167      | M 2X           | 131.0     | 0.0             | 0.8              | 0.0              | 27.6             | 21                |        |
| MEANS             |                | 149.8     |                 | 2.3              |                  | 26.7             |                   |        |
| LSD (.05)         |                | 20.5      |                 |                  | C.V. - %         | 9.7              |                   |        |

TABLE 24. AREA C1(LATE-DRYLAND) 1983-1986 YIELD, MOISTURE AND STALK LODGING AVERAGES OF CORN HYBRIDS

| 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 |
| CENEX 2106        | 113             | 122  | 132  | 6                | 3    | 3    | 19               | 20   | 21   |
| KELTGEN KS1030    | 125             | 135  | 147  | 4                | 3    | 2    | 21               | 22   | 24   |
| KELTGEN KS1050    |                 | 139  | 148  |                  | 3    | 2    |                  | 24   | 27   |
| SDAES CHECK 9     |                 | 130  | 136  |                  | 4    | 2    |                  | 25   | 26   |
| SIGCO 1605        |                 |      | 139  |                  |      | 1    |                  |      | 25   |
| TOP FARM SX 104A  | 125             | 139  | 153  | 12               | 12   | 5    | 22               | 23   | 25   |
| TCP FARM SX 1104  |                 | 126  | 133  |                  | 2    | 2    |                  | 21   | 22   |



TABLE 25. 1986 CORN PERFORMANCE TRIAL, AREA C1(EARLY-IRRIGATED), JAMES VALLEY RESEARCH FARM, REDFIELD, SD

| BRAND AND VARIETY    | TYPE AND CROSS | YIELD B/A | PCT RCCT LODGED | PCT STALK LODGED | PCT EARS DROPPED | PERCENT MOISTURE | PERFORMANCE SCORE RATING |
|----------------------|----------------|-----------|-----------------|------------------|------------------|------------------|--------------------------|
| SIGCO 1701           | M 2X           | 209.1     | 0.0             | 0.0              | 0.0              | 27.3             | 1                        |
| MCCURDY 5750         | M 2X           | 202.3     | 0.0             | 0.5              | 0.0              | 29.5             | 2                        |
| PAYCO SX 750         | M 2X           | 196.9     | 0.0             | 1.0              | 0.0              | 29.5             | 3                        |
| HORIZON 6101         | M 2X           | 187.7     | 0.0             | 1.1              | 0.0              | 27.3             | 5                        |
| PIONEER 3790         | E 2X           | 185.5     | 0.0             | 0.0              | 0.0              | 22.4             | 4                        |
| PIONEER 3704         | M 2X           | 182.7     | 0.0             | 0.6              | 0.0              | 24.8             | 6                        |
| CURRY SC1418         | E 2X           | 182.6     | 0.0             | 0.5              | 0.0              | 25.3             | 7                        |
| STAUFFER S4502       | M 2X           | 180.7     | 0.0             | 0.0              | 0.0              | 25.0             | 8                        |
| PIONEER 3732         | M 2X           | 180.1     | 0.0             | 0.5              | 0.0              | 27.4             | 13                       |
| KELTGEN KS1030       | M 2X           | 176.5     | 0.0             | 0.0              | 0.0              | 26.9             | 15                       |
| CARGILL 839          | E 2X           | 175.8     | 0.0             | 0.0              | 0.0              | 25.7             | 14                       |
| PIONEER 3737         | M 2X           | 174.4     | 0.0             | 0.5              | 0.0              | 22.4             | 11                       |
| NORTHROP KING PX9151 | E 2X           | 173.4     | 0.0             | 0.0              | 0.0              | 20.8             | 9                        |
| BETAGOLD INGRID      | E 2X           | 172.5     | 0.0             | 2.5              | 0.0              | 20.3             | 10                       |
| KING K2204           | E 2X           | 171.1     | 0.0             | 1.5              | 0.0              | 20.2             | 12                       |
| PAYCO SX 710         | M 2X           | 170.2     | 0.0             | 0.0              | 0.0              | 30.4             | 29                       |
| CARGILL 829          | E 2X           | 170.1     | 0.0             | 2.6              | 0.0              | 25.7             | 20                       |
| PRIDE X1076          | M 2X           | 168.9     | 0.0             | 0.0              | 0.0              | 27.1             | 23                       |
| JACQUES 4700         | E 2X           | 167.4     | 0.0             | 0.0              | 0.0              | 23.2             | 18                       |
| PRIDE EXP99          | E 2X           | 167.1     | 0.0             | 1.0              | 0.0              | 25.2             | 21                       |
| JACQUES 4750         | E 2X           | 166.6     | 0.0             | 1.6              | 0.0              | 25.8             | 24                       |
| DEKALB DK415         | E 2X           | 165.8     | 0.0             | 0.0              | 0.0              | 21.7             | 17                       |
| PRIDE X1036          | M 2X           | 165.5     | 0.0             | 0.5              | 0.0              | 26.0             | 26                       |
| PAYMASTER 1990       | M 2X           | 165.4     | 0.0             | 0.5              | 0.0              | 23.2             | 19                       |
| ASGRW/C'S GCLD 2330  | E 2X           | 165.4     | 0.0             | 1.0              | 0.0              | 24.1             | 22                       |
| CARGILL 842          | E 2X           | 165.3     | 0.0             | 0.5              | 0.0              | 25.5             | 25                       |
| CURRY SC1436         | E 2X           | 165.2     | 0.0             | 1.0              | 0.0              | 26.8             | 31                       |
| TERRA SEED TR 1040   | M 2X           | 164.1     | 0.0             | 0.6              | 0.0              | 29.4             | 42                       |
| PAG SX180            | E 2X           | 164.1     | 0.0             | 0.0              | 0.0              | 26.8             | 35                       |
| HORIZON 4090         | E 2X           | 164.0     | 0.0             | 0.0              | 0.0              | 20.3             | 16                       |
| DEKALB DK461         | E 2X           | 163.4     | 0.0             | 1.6              | 0.0              | 24.3             | 27                       |
| PIONEER 3901         | E 2X           | 163.3     | 0.0             | 0.6              | 0.0              | 26.1             | 34                       |
| SEEDTEC KX-5400      | M 2X           | 162.2     | 0.0             | 1.0              | 0.0              | 24.7             | 30                       |
| DAHLGREN DC-515      | M 2X           | 162.1     | 0.0             | 0.0              | 0.0              | 29.0             | 46                       |
| SUPERCROST 1989      | E 2X           | 160.1     | 0.0             | 1.0              | 0.0              | 26.1             | 40                       |
| KELTGEN KS95         | M 2X           | 159.6     | 0.0             | 1.0              | 0.0              | 26.2             | 41                       |
| SUPERCROST 1940      | E 2X           | 159.4     | 0.0             | 0.5              | 0.0              | 24.7             | 36                       |
| TOP FARM SX1099      | M 2X           | 159.2     | 0.0             | 0.0              | 0.0              | 25.7             | 39                       |
| SIGCO 270-2          | M 2X           | 159.1     | 0.0             | 0.5              | 0.0              | 25.4             | 38                       |
| KING K1184           | E 2X           | 158.2     | 0.0             | 0.0              | 0.0              | 21.8             | 28                       |
| INTERSTATE 453       | E 2X           | 156.8     | 0.0             | 1.1              | 0.0              | 21.2             | 33                       |
| SIGCO 179-2          | E 2X           | 156.6     | 0.0             | 0.0              | 0.0              | 21.4             | 32                       |
| PAG 223229           | E 2X           | 156.3     | 0.0             | 1.0              | 0.0              | 24.2             | 44                       |
| INTERSTATE 343       | E 2X           | 153.6     | 0.0             | 0.0              | 0.0              | 23.6             | 47                       |
| STAUFFER S3303       | E 2X           | 152.7     | 0.0             | 0.0              | 0.0              | 20.4             | 37                       |
| SEEDTEC 7931         | M 2X           | 151.0     | 0.0             | 0.0              | 0.0              | 21.2             | 45                       |
| CENEX 2093           | E 2X           | 150.0     | 0.0             | 1.6              | 0.0              | 19.8             | 43                       |
| CENEX 2056           | M 2X           | 149.9     | 0.0             | 0.6              | 0.0              | 23.8             | 48                       |
| PAYCO SX 788         | M 2X           | 149.3     | 21.3            | 0.0              | 0.0              | 30.0             | 56                       |
| PAYMASTER 1690       | E 2X           | 149.0     | 0.0             | 0.0              | 0.0              | 25.1             | 50                       |
| DAHLGREN DC-498      | L 2X           | 147.9     | 0.0             | 0.0              | 0.0              | 24.8             | 51                       |
| KING K4422           | M 2X           | 147.5     | 0.0             | 0.0              | 0.0              | 24.0             | 49                       |
| HORIZON 202          | M 2X           | 147.1     | 0.0             | 1.7              | 0.0              | 24.2             | 53                       |
| TERRA SEED EXP102    | E 2X           | 144.5     | 0.0             | 1.6              | 0.0              | 27.1             | 58                       |
| SEEDTEC KX-3400      | M 2X           | 140.9     | 0.0             | 0.0              | 0.0              | 20.3             | 52                       |
| NORTHROP KING PX9161 | E 2X           | 140.3     | 0.0             | 1.0              | 0.0              | 22.5             | 54                       |
| SEEDTEC 7971         | M 2X           | 139.4     | 0.0             | 1.5              | 0.0              | 22.6             | 55                       |
| CARGILL 859          | M 2X           | 138.1     | 0.0             | 1.3              | 0.0              | 25.7             | 60                       |
| TOP FARM SX104       | M 2X           | 137.5     | 0.0             | 1.1              | 0.0              | 25.0             | 59                       |
| TERRA SEED TR 3100   | E 2X           | 136.0     | 0.0             | 0.6              | 0.0              | 26.5             | 62                       |
| BETAGOLD GRETTEL     | E 2X           | 131.9     | 0.0             | 0.0              | 0.0              | 18.8             | 57                       |
| MCCURDY 3500         | E 2X           | 128.8     | 0.0             | 0.6              | 0.0              | 21.1             | 61                       |
| SDAES CHECK 10       | E 2X           | 120.9     | 0.0             | 4.4              | 0.0              | 25.1             | 63                       |
| SDAES CHECK 4        | E 2X           | 113.5     | 0.0             | 1.1              | 0.0              | 27.2             | 64                       |
| MEANS                |                | 160.8     |                 | 2.7              |                  | 23.7             |                          |
| LSD (.05)            |                | 29.2      |                 |                  | C.V. - %         | 13.0             |                          |

TABLE 26. AREA C1(EARLY-IRRIGATED) 1983-1986 YIELD, MOISTURE AND STALK LODGING AVERAGES OF CORN HYBRIDS

| 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 |
| CARGILL 829          |                 | 147  | 163  |                  | 4    | 2    |                  | 22   | 23   |
| CARGILL 839          |                 |      | 170  |                  |      | 1    |                  |      | 24   |
| CARGILL 842          |                 |      | 162  |                  |      | 2    |                  |      | 24   |
| CARGILL 859          |                 |      | 142  |                  |      | 2    |                  |      | 23   |
| CENEX 2093           |                 |      | 141  |                  |      | 2    |                  |      | 18   |
| CENEX 2096           |                 |      | 157  |                  |      | 1    |                  |      | 21   |
| CURRY SC1418         |                 |      | 163  |                  |      | 1    |                  |      | 23   |
| JAHLGREN CC-498      |                 |      | 151  |                  |      | 0    |                  |      | 23   |
| DEKALB DK461         |                 |      | 157  |                  |      | 1    |                  |      | 21   |
| HORIZON 202          |                 | 153  | 151  |                  | 4    | 2    |                  | 21   | 22   |
| HORIZON 4090         |                 |      | 147  |                  |      | 5    |                  |      | 18   |
| KELTGEN KS 95        | 131             | 145  | 155  | 5                | 6    | 1    | 21               | 22   | 24   |
| KELTGEN KS1030       |                 | 151  | 167  |                  | 2    | 0    |                  | 22   | 24   |
| MC CURDY 5750        |                 |      | 185  |                  |      | 2    |                  |      | 28   |
| NORTHRUP KING PX9151 |                 | 151  | 163  |                  | 3    | 0    |                  | 19   | 19   |
| PAG SX180            |                 | 152  | 167  |                  | 5    | 1    |                  | 22   | 23   |
| PAYMASTER 1690       |                 |      | 143  |                  |      | 1    |                  |      | 23   |
| PAYMASTER 1990       |                 | 152  | 161  |                  | 4    | 1    |                  | 20   | 21   |
| PICNEER 3732         | 146             | 165  | 176  | 2                | 0    | 0    | 23               | 24   | 26   |
| PIONEER 3737         |                 | 159  | 169  |                  | 9    | 1    |                  | 19   | 20   |
| PIONEER 3901         | 131             | 153  | 163  | 2                | 1    | 0    | 21               | 22   | 23   |
| SDAES CHECK 4        | 104             | 111  | 117  | 5                | 5    | 1    | 22               | 23   | 25   |
| SDAES CHECK 10       | 100             | 115  | 130  | 11               | 10   | 4    | 20               | 22   | 23   |
| SEEDTEC KX3400       |                 |      | 143  |                  |      | 1    |                  |      | 19   |
| SEEDTEC KX5400       | 130             | 142  | 155  | 2                | 1    | 1    | 20               | 21   | 22   |
| SEEDTEC 7931         |                 |      | 145  |                  |      | 1    |                  |      | 19   |
| SEEDTEC 7571         |                 | 129  | 140  |                  | 3    | 1    |                  | 19   | 20   |
| STAUFFER S3303       |                 |      | 148  |                  |      | 2    |                  |      | 18   |
| SUPERCRIST 1940      |                 | 140  | 155  |                  | 5    | 1    |                  | 20   | 21   |
| TOP FARM SX1099      |                 |      | 158  |                  |      | 0    |                  |      | 23   |

TABLE 27. 1986 CORN PERFORMANCE TRIAL, AREA C1(LATE-IRRIGATED), JAMES VALLEY RESEARCH FARM, REDFIELD, SD

| BRAND AND VARIETY    | TYPE AND CROSS | YIELD B/A | PCT ROOT LODGED | PCT STALK LODGED | PCT EARS DROPPED | PERCENT MOISTURE | PERFORMANCE  |
|----------------------|----------------|-----------|-----------------|------------------|------------------|------------------|--------------|
|                      |                |           |                 |                  |                  |                  | SCORE RATING |
| CURRY SC1466         | L 2X           | 207.6     | 0.0             | 0.5              | 0.0              | 31.3             | 1            |
| PAYCO SX 847         | L 2X           | 198.3     | 0.0             | 0.5              | 0.0              | 32.5             | 3            |
| MCCURDY 4945         | M 2X           | 198.0     | 0.0             | 0.0              | 0.0              | 28.8             | 2            |
| SEEDTEC X72405       | L 2X           | 186.7     | 0.0             | 0.5              | 0.0              | 28.8             | 4            |
| KING K5574           | L 2X           | 185.1     | 0.0             | 0.0              | 0.0              | 31.2             | 6            |
| KELTGEN KS1050       | M 2X           | 184.7     | 0.0             | 0.5              | 0.0              | 30.1             | 5            |
| PAG 133037           | M 2X           | 177.7     | 0.0             | 0.0              | 0.0              | 31.7             | 9            |
| PAYCO SX 872         | M 2X           | 174.2     | 0.0             | 0.5              | 0.0              | 30.6             | 11           |
| NORRUP KING PX9292   | M 2X           | 173.9     | 0.0             | 0.5              | 0.0              | 26.0             | 7            |
| ASGROW/G'S GOLD 2450 | M 2X           | 171.8     | 0.0             | 0.5              | 0.0              | 30.4             | 12           |
| CENEX 2100           | M 2X           | 169.4     | 0.0             | 0.5              | 0.0              | 27.0             | 10           |
| STAUFFER S5260       | L 2X           | 168.2     | 0.0             | 0.0              | 0.0              | 31.4             | 15           |
| INTERSTATE 375       | M 2X           | 167.7     | 0.0             | 1.1              | 0.0              | 24.2             | 8            |
| TOP FARM SX104A      | L 2X           | 166.0     | 0.0             | 1.1              | 0.0              | 30.2             | 16           |
| SIGCC 1605           | M 2X           | 165.0     | 0.0             | 0.5              | 0.0              | 29.1             | 14           |
| KELTGEN EXP.142      | M 2X           | 163.1     | 0.0             | 1.1              | 0.0              | 29.4             | 18           |
| DEKALB DK524         | M 2X           | 160.6     | 0.0             | 1.7              | 0.0              | 30.0             | 19           |
| SDAES CHECK 9        | L 2X           | 160.2     | 0.0             | 0.0              | 0.0              | 31.4             | 20           |
| PRIDE 5556           | M 2X           | 158.6     | 0.0             | 0.0              | 0.0              | 32.2             | 21           |
| MCCURDY 4737         | M 2X           | 158.1     | 0.0             | 0.0              | 0.0              | 24.1             | 13           |
| CENEX 2106           | M 2X           | 155.4     | 0.0             | 0.0              | 0.0              | 24.5             | 17           |
| KELTGEN KS104        | M 2X           | 155.2     | 0.0             | 0.5              | 0.0              | 30.8             | 22           |
| PRIDE EXP111         | M 2X           | 152.4     | 0.0             | 0.0              | 0.0              | 36.1             | 24           |
| HORIZON 4109         | M 2X           | 143.5     | 0.0             | 0.0              | 0.0              | 31.1             | 26           |
| TOP FARM SX1104      | L 2X           | 142.4     | 0.0             | 0.6              | 0.0              | 24.5             | 23           |
| CARGILL 4167         | M 2X           | 140.2     | 0.0             | 0.0              | 0.0              | 29.1             | 25           |
| KING K416            | L 2X           | 139.4     | 0.0             | 2.1              | 0.0              | 28.5             | 27           |
| NORRUP KING PX9283   | M 2X           | 131.2     | 0.0             | 4.1              | 0.0              | 28.8             | 28           |
| MEANS                |                | 166.2     |                 | 0.6              |                  | 29.4             |              |
| LSD (.05)            |                | 25.2      |                 |                  | C.V. - %         | 10.8             |              |

TABLE 28. AREA C1(IRRIGATED-LATE) 1983-1986 YIELD, MOISTURE AND STALK LODGING AVERAGES OF CORN HYBRIDS

| 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/G'S GOLD 2450 |                 |      | 168  |                  |      | 1    |                  |      | 28   |
| CENEX 2106           | 132             | 145  | 154  | 2                | 1    | 1    | 19               | 20   | 21   |
| CURRY SC1466         |                 | 181  | 199  |                  | 2    | 1    |                  | 27   | 29   |
| DEKALB DK524         |                 |      | 168  |                  |      | 2    |                  |      | 26   |
| KELTGEN KS 104       | 138             | 149  | 160  | 4                | 3    | 1    | 23               | 24   | 27   |
| KELTGEN KS1050       |                 | 158  | 155  |                  | 3    | 1    |                  | 26   | 28   |
| MC CURDY 4737        |                 |      | 144  |                  |      | 0    |                  |      | 22   |
| MC CURDY 4945        |                 | 163  | 178  |                  | 9    | 2    |                  | 25   | 27   |
| PRIDE 5556           |                 |      | 159  |                  |      | 0    |                  |      | 29   |
| SIGCC 1605           |                 |      | 166  |                  |      | 1    |                  |      | 27   |
| TOP FARM SX1104      |                 | 129  | 141  |                  | 2    | 1    |                  | 20   | 21   |

Table 29. Listing of Hybrid Corn Entries Harvested in 1986 and the Tables where the Results Appear.

| Company and Brand  | Entry   | Tables  | Company and Brand   | Entry   | Tables  |
|--|---|---|---|---|---|
| Asgrow Seed Company<br>7000 Portage Road<br>Kalamazoo, MI 49001<br>"Asgrow/O's Gold" | RX480<br>2330<br>2450<br>6880<br>6882   | 5,8,21<br>5,8,10,25<br>27,28<br>17<br>14,16   | Fontanelle Hybrids<br>Rt. 1, Box 18<br>Nickerson, NE 68044<br>"Fontanelle"    | 4253<br>4280<br>5230  | 13<br>13<br>14,16   |
| Betaseed, Inc.<br>P.O. Box 195<br>Shakopee, MN 55379<br>"Betagold"                   | Gretel<br>Heidi<br>Ingrid<br>Kristine   | 21,25<br>13<br>5,21,25<br>10  | Edw. Funk & Sons<br>P.O. Box 67<br>Kentland, IN 47951<br>"Supercrost"         | 1940<br>1989<br>2989<br>4304  | 21,22,25,26<br>5,10,21,25<br>6,7,14,16<br>14,16   |
| Cargill Seeds<br>PO Box 9300<br>Minneapolis, MN 55440<br>"Cargill"                   | 829<br>839<br>842<br>859<br>861<br>874<br>889<br>893<br>918<br>937<br>4167<br>6377<br>130409    | 21,22,25,26<br>5,10,21,22,25,26<br>5,8,9,10,21,22,25,26<br>5,8,9,10,21,22,25,26<br>6,7,11,12<br>17<br>13,15,17,18<br>17,18<br>14<br>14,16<br>6,11,23,27<br>14,19<br>14,19 | A. S. Stengel & Sons<br>RR 2, Box 105<br>Milbank, SD 57252<br>"Golden Valley" | 344<br>352<br>2500  | 5,8<br>5<br>5,8   |
| Cenex<br>Box 65089<br>St. Paul, MN 55164<br>"Cenex"                                  | 2085<br>2093<br>2096<br>2098A<br>2100<br>2106<br>2107<br>2110<br>2114                           | 5,8<br>5,8,9,10,21,22,25,26<br>5,9,10,21,22,25,26<br>9,10<br>11,17,23,27<br>17,23,24,27,28<br>13,15,17<br>13,15,19,20<br>14   | Green Acres<br>RR 2<br>Hastings, NE 68739<br>"Green Acres"                    | 745<br>3000<br>3017<br>7264   | 19<br>17,18<br>17<br>19   |
| Crow's Hybrid Corn Co.<br>Box 306<br>Milford, IL 60953<br>"Crow's"                   | 181<br>199<br>212<br>344<br>442<br>444  | 10,13,17<br>11,13,17<br>11,17<br>11,13<br>11,14<br>14   | Hoegemeyer Hybrids<br>RR 2<br>Hooper, NE 68031<br>"Hoegemeyer"                | SX2545<br>SX2565<br>SX2566<br>SX2595<br>SX2625  | 9,10<br>13<br>10,13,17<br>19,20<br>13,15,17,18  |
| Curry Seed Co.<br>PO Box 517<br>Elk Point, SD 57025<br>"Curry"                       | 1418<br>1419<br>1436<br>1466<br>1477<br>1482  | 9,10,25,26<br>13<br>10,21,25<br>11,14,16,27,28<br>14,16<br>14   | Horizon Seeds, Inc.<br>1600 Cornhusker Hwy<br>Lincoln, NE 68501<br>"Horizon"  | 202<br>717<br>4090<br>4109<br>4111<br>6101  | 6,11,12,13,21,22,25<br>19<br>5,9,10,21,22,25<br>13,17,23,27<br>14,17<br>6,11,21,25  |
| Custom Farm Seed<br>PO Box 160<br>Mokenca, IL 60954<br>"CFS"                         | 6203<br>7501<br>93019<br>93021<br>W93022<br>W93010  | 13<br>14<br>6<br>11<br>6,10<br>13   | Interstate Seed Co.<br>PO Box 470<br>Fargo, ND 58107<br>"Interstate"          | 343<br>375<br>453<br>533<br>593<br>603  | 5,8,9,10,21,25<br>6,11,23,27<br>5,21,25<br>11,13,17<br>14,19<br>14,19   |
| Dahlgren & Co.<br>1220 Sunflower St.<br>Crookston, MN 56716<br>"Dahlgren"            | DC-475<br>DC-498<br>DC-501<br>DC-515<br>DC-535  | 5<br>6,7,9,10,21,22,25,26<br>21<br>11,25<br>14,19   | Jacques Seed Co.<br>720 St. Croix<br>Prescott, WI 54021<br>"Jacques"          | 4700<br>4750<br>7700<br>7750  | 5,10,21,25<br>5,10,21,25<br>13,17<br>13,17  |
| DeKalb Pfizer-Genetics<br>3100 Sycamore Road<br>DeKalb, IL 60115<br>"DeKalb"         | DK-415<br>DK-435<br>DK-447<br>DK-461<br>DK-484<br>DK-498<br>DK-524<br>DK-572<br>DK-636<br>T1100 | 10,25<br>21<br>5<br>9,10,25,26<br>5,8<br>21,22<br>6,11,12,13,17,23,27,28<br>13,17<br>14,16,19,20<br>14,16   | Kaltenberg Seed Farms<br>RR 2, Box 278<br>Waunakee, WI 53597<br>"Kaltenberg"  | KX64<br>KX74<br>KX77  | 13<br>14<br>14  |
|  |   |   | Keltgen Seed Company<br>PO Box A<br>Olivia, MN 56277<br>"Keltgen"             | KS89<br>KS920<br>KS95<br>KS1010<br>KS1020<br>KS1030<br>KS104<br>KS1050<br>KS1070<br>KS1090<br>KS114<br>KS1150<br>KS1091<br>Exp. 142<br>Exp. 192 | 5,8<br>5<br>5,8,9,10,25<br>6,10,11<br>11,12,21,22<br>23,24,25<br>11,12,27,28<br>11,12,17,18,23,24,27,28<br>13,15,17,18<br>13,15,19,20<br>14,16<br>14,16<br>19<br>17,23,27<br>14 |
|  |   |   | King Grain, Inc.<br>3459 Crestview Drive<br>St. Joseph, MI 49085<br>"King"    | K416<br>K596<br>K1184<br>K2203<br>K2204<br>K4422<br>K5574   | 6,11,13,17,23,27<br>14,19<br>5,10,21,25<br>5<br>5,10,13,17,21,25<br>5,10,13,17,21,25<br>11,14,19,23,27  |

Table 29 (Cont.).

| Company and Brand   | Entry   | Tables   | Company and Brand   | Entry  | Tables   |
|---|---|--|---|--|--|
| Land O'Lakes<br>2827 8th Ave. S.<br>Ft. Dodge, IA 50501<br>"Land O'Lakes"         | 555<br>644<br>845<br>1096MR   | 13,15<br>14<br>11<br>9,10  | Pride Company, Inc.<br>RFD Box 58<br>Glen Haven, WI 53810<br>"Pride"        | 1194<br>2216<br>4422<br>5556<br>6656<br>6692<br>7705   | 9,10<br>9,10<br>6,21,22<br>17,18,27,28<br>19,30<br>14,16<br>14,16  |
| Lynks Seeds<br>Box 637<br>Marshalltown, IA 50158<br>"Lynks"                       | LX3970<br>LX4084<br>LX4101<br>LX4102<br>LX4235<br>LX4304<br>LX4313<br>LX4315                                      | 5,8<br>5,8,10<br>6,10<br>11,12<br>13,15,17,18<br>14,16,19<br>19<br>14,16   | Exp 99<br>Exp 111<br>Exp 117<br>X1036<br>X1066<br>X1076<br>X1136            | 5,10,21,25<br>13,17,27<br>14<br>11,21,25<br>23<br>11,23,25<br>14   |  |
| McCurdy Seed Co.<br>P.O. Box 66<br>Fremont, IA 52561<br>"Big M"                   | 3500<br>4737<br>4945<br>5590<br>5750<br>5990<br>7384  | 25<br>9,10,27,28<br>11,12,27,28<br>13,15<br>11,12,13,15,25<br>11,13<br>14,16   | SDAES<br>Plant Science, Dept.<br>SDSU<br>Brookings, SD 57007<br>"Check"     | 1<br>4<br>9<br>10<br>11  | 14,16<br>5,8,9,10,13,17,19,21,22,25,26<br>6,7,11,12,14,16,19,20,23,24,27<br>5,8,9,10,13,15,17,18,21,22,25,26<br>5,8,9,10 |
| NC+ Hybrids<br>P.O. Box 4408<br>Lincoln, NE 68504<br>"NC+"                        | 2561<br>3884<br>4505<br>4650<br>5111  | 13<br>13<br>13<br>14<br>14   | SeedTec, Int'l<br>Box 5692<br>Fargo, ND 58105<br>"SeedTec"                  | KX3400<br>KX4200<br>KX5400<br>KX5800<br>KX5900<br>KX60<br>KX6800<br>X72405                                   | 5,9,10,21,22,25,26<br>9,10,21,22<br>9,10,25,26<br>13,15,17,18,23<br>13,14,17,18<br>14,16,19,20<br>14,16,19,20<br>13,23   |
| North Central Seed Co.<br>P.O. Box 1008<br>Mitchell, SD 57301<br>"Gold Star"      | GS-105<br>GS-108<br>GS-110  | 17<br>13,17<br>16  | 7931<br>7971  | 5,8,21,22,25,26,27<br>5,8,10,25  |  |
| Northrup King Co.<br>1754 Park Blvd.<br>Fargo, ND 58103<br>"Northrup King"        | PX9151<br>PX9161<br>PX9283<br>PX9292<br>PX9385<br>PX9470  | 9,10,25<br>10,25<br>11,27<br>11,27<br>14,19<br>14,19   | Sigco Research, Inc.<br>Box 289<br>Breckenridge, MN 56520<br>"Sigco"        | 1605<br>1701<br>1792<br>270-2  | 6,7,10,23,24,27,28<br>5,10,21,25<br>25<br>5,25   |
| PAG Seeds, Inc.<br>PO Box 9480<br>Minneapolis, MN 55440<br>"PAG"                  | SX180<br>SX269<br>SX310<br>130409<br>132701<br>133037<br>223229   | 5,8,9,10,21,22,25,26<br>13,15,17<br>14,16,19,20<br>11,13<br>14,17<br>6,11,23,27<br>5,10,21,25  | Stauffer Seeds, Inc.<br>911 Squire Lane<br>Aberdeen, SD 57401<br>"Stauffer" | S3303<br>S3306<br>S4402<br>S4502<br>S4454wx<br>S5340<br>S5750<br>S5650<br>S5260<br>S5722wx<br>S6596<br>S7751 | 5,8,21,25,26<br>5,8,21,22<br>6,7<br>6,25<br>21<br>11,12,14,16,17<br>23<br>6,11<br>27<br>11<br>14,16<br>14                |
| Payco Seeds<br>PO Box 70<br>Dassel, MN 55325<br>"Payco"                           | SX342<br>SX431<br>SX500<br>SX599<br>SX640<br>SX611<br>SX750<br>SX788<br>SX710<br>SX872<br>SX847<br>SX860<br>SX925 | 5,8<br>5,8,9,10<br>5,8,9,10<br>5,8,10<br>11<br>6,7,11<br>13,25<br>25<br>25<br>13,27<br>14,27<br>14,16<br>14,16   | Terning Seeds<br>RR 1, Box 259<br>Cokato, MN 55321<br>"Terning"             | Encore<br>Premier<br>Sprint  | 10,13,17<br>5,10,13<br>5,10  |
| Paymaster Seeds<br>PO Box 9493<br>Minneapolis, MN 55440<br>"Paymaster"            | 1690<br>1990<br>2999<br>6127<br>6347  | 9,10,21,22,25,26<br>22,23,25,26<br>13<br>11,14,19<br>14,19   | Terra Seed Co.<br>600 4th Street<br>Sioux City, IA 51101<br>"Terra"         | TR1040<br>TR3100<br>TR3050<br>TR3203<br>Exp 102<br>Exp 108   | 11,13,17,21,25<br>9,10,21,25<br>9,10,21<br>14,16,19<br>21,25<br>14   |
| Pioneer Hi-Bred, Int'l<br>7000 Pioneer Parkway<br>Johnston, IA 50131<br>"Pioneer" | 3377<br>3378<br>3471<br>3475<br>3704<br>3713<br>3732<br>3737<br>3790<br>3901                                      | 14,16,19,20<br>14,16,19,20<br>13,17<br>13,15,17,18<br>6,11,21,25<br>13,15,17,18<br>6,7,11,12,21,22,25,26<br>5,8,9,10,21,22,25,26<br>5,10,21,25<br>5,8,9,10,21,22,25,26 | Top Farm Hybrids<br>Box 850<br>Cokato, MN 55321<br>"Top Farm"               | SX1193<br>SX1094<br>SX1195<br>SX1096<br>SX1098<br>SX1099<br>SX104<br>SX104A<br>SX1104                        | 5,8<br>5,10<br>5,10<br>9,10<br>6,7,11,12<br>6,7,11,12,17,18,21,25,26<br>17,21,25<br>19,23,24,27<br>19,20,21,27,28        |
|   |   |  | Wilson Hybrids, Inc.<br>Box 391<br>Harlan, IA 51530<br>"Wilson"             | 1100b<br>1500b<br>1640<br>1700   | 17,18<br>13,15,17,18<br>14,19<br>14,16   |

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