1-1971

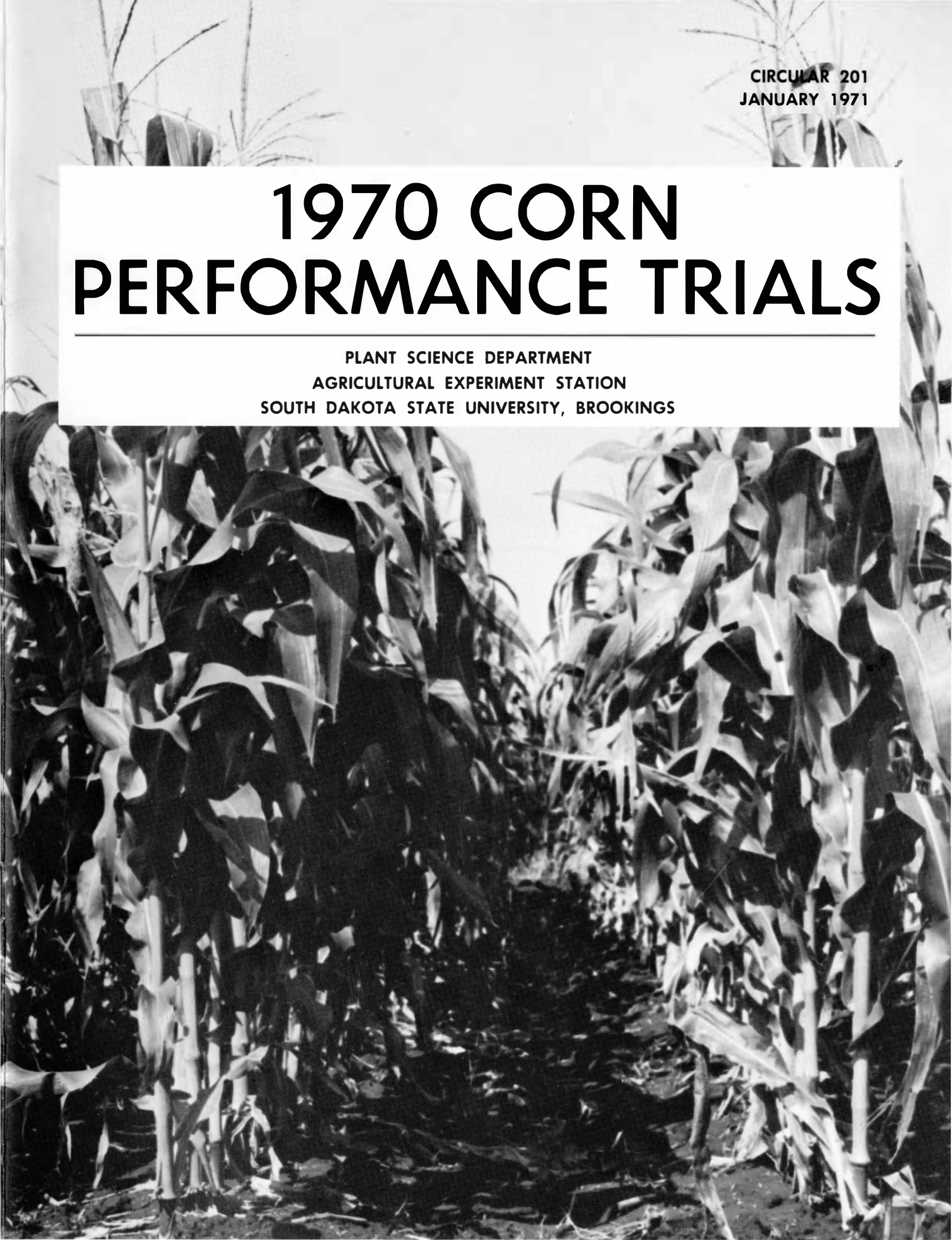
# 1970 Corn Performance Trials

J.J. Bonnemann
*South Dakota State University*

CIRCULAR 201
JANUARY 1971

# 1970 CORN PERFORMANCE TRIALS

PLANT SCIENCE DEPARTMENT
AGRICULTURAL EXPERIMENT STATION
SOUTH DAKOTA STATE UNIVERSITY, BROOKINGS



LISTING OF TABLES

# 1970 Corn Performance Trials

J. J. Bonnemann, Assistant Agronomist

Agricultural Experiment Station
South Dakota State University
Brookings, South Dakota 57006

The primary purpose of this circular is to supply interested individuals with information on the relative performance of the hybrids entered in each test, when grown under similar environmental conditions. Information in the accompanying tables includes acre grain yields in bushels per acre, moisture percentages of either ear or shelled corn when harvested, performance scores and other related information. Records of performance of the corn hybrids harvested in 1970 are presented as well as two-, three-, four-, and five-year averages of yield and moisture percentages where available. The trials reported herein have been conducted under the Plant Science Department program in Crop Performance Testing, Agricultural Experiment Station.

## Location of the 1970 Trials

The trials were planted in the crop adaptation areas marked on the South Dakota map, page 23. The location of the Area D4 trial was changed from near Parkston, Hutchinson County, to Bridgewater in McCook County. The exact location of each trial and the date of seeding and harvesting are given in Table 1. The soil classification, laboratory analysis of soil samples taken before or at seeding time, and fertilizer applied, are presented in Table 2.

## Weather and Climatic Conditions

The climatic data for the 1970 growing season is based upon data from a U.S. Weather Bureau Station reasonably near the trial. Armour is the nearest station east of Geddes. The cooperator near Geddes reported about 4 1/2 inches of precipitation during June, July and August.

May was wet and cool, wet fields delaying seeding in the southern portion of the state. Hail fell at Redfield on May 30, breaking off young shoots and causing severe soil crusting over sprouting kernels. Precipitation amounts were generally above normal in June and temperature often high, especially late in the month. July precipitation ranged from adequate through the east central portion of the state, to limited in the remaining areas.

July temperatures, though not often abnormally high, were accompanied by strong winds especially during tasseling and pollination periods. Precipitation was very limited in August and temperatures were high. Near drought conditions developed in several areas, especially southern and western portions of the state.

---

The assistance of the following individuals is appreciated: D. B. Shank of the Plant Science Department; Sub-station supervisors Albert Dittman, Lloyd Dye, Jake Fredrikson, Quentin Kingsley, Burton Lawrensen, and Herb Lund; and farmer-cooperators William Fijala and Clifford Hofer.

TABLE 1. LOCATION OF THE 1970 CORN PERFORMANCE TRIALS

| Area | County | Location | Post Office | Date Seeded | Date Harvested |
|---|---|---|---|---|---|
| B2 | McPherson | North Central Substation | Eureka | May 25 | Oct. 13 |
| C1-dry | Spink | Redfield Devel. Farm, 6E | Redfield | May 26 | Oct. 14 |
| C1-irr. | Spink | Redfield Devel. Farm, 6E | Redfield | May 26 | Oct. 14 |
| C2 | Charles Mix | Wm. Fijala Farm, 3E, 1N | Geddes | May 19 | Oct. 20 |
| D1 | Grant | Whetstone Valley Farm, 5W | Milbank | May 21 | Oct. 19 |
| D3 | Brookings | Agronomy Farm, 2NE | Brookings | May 14 | Oct. 27 |
| D4 | McCook | Clifford Hofer Farm, 1S | Bridgewater | May 13 | Oct. 6 |
| E | Clay | SE Experiment Farm, 7W, 3S | Beresford | May 18 | Oct. 23 |

Rainfall was adequate in September but the severe moisture and temperature stresses of August had damaged most plants to the extent that little recovery occurred. Where recovery was possible the early September moisture aided by warm days and no freezing temperatures until early October permitted satisfactory yields of quality grain.

Moisture in the corn at harvest time was very low. A heavy, early October snowfall of up to 5 inches, delayed harvesting in the drought areas. In the areas where growth had continued, the first killing frost occurred when the snowfall came.

The stresses caused by drought during 1970, plus insect problems, created wide variations in the trials. Initial population differences (Table 4) were significant only in the trial at Brookings, Area D3. Favorable combinations of precipitation and temperature through out most of the growing season favored the Brookings trial with very satisfactory yields. Drought effects were most serious on the trials at Geddes and the dryland trial at Redfield.

TABLE 2. LABORATORY ANALYSIS, SOIL CLASSIFICATION AND FERTILIZER APPLIED TO THE 1970 CORN PERFORMANCE TRIALS

| Location | Soil Classification | % O.M. | P | K | pH | Fertilizer Applied Method | N | P | K |
|---|---|---|---|---|---|---|---|---|---|
| | | | Lbs/A | | | | | | |
| B2 | Williams L | 2.8 | 89 | 682+ | 7.5 | plowed down | 10T manure | | |
| C1-dry | Boetia-Harmony SiCl | 3.7 | 70 | 682+ | 7.2 | plowed down | 120 | 46 | 0 |
| C1-irr. | Boetia-Harmony SiCl | 3.7 | 68 | 682+ | 7.0 | plowed down | 120 | 25 | 0 |
| C2 | Reliance SiCl | 3.3 | 8 | 540 | 7.2 | disced under | 87 | 42 | 0 |
| D1 | Peever CL | 3.5 | 22 | 436 | 7.0 | plowed down | 60 | 40 | 0 |
| D4 | Houdek L | 3.0 | 34 | 379 | 6.5 | starter | 7 | 21 | 7 |
| E | Kranzburg SiCl | 3.6 | 50 | 581 | 6.8 | plowed down | 81 | 40 | 20 |

TABLE 3. PRECIPITATION AND TEMPERATURE DATA FOR THE 1970 CORN GROWING SEASON OF SOUTH DAKOTA*

| Location and District | Month | Temperature, degrees F. Month mean Temp. | Departure from Normal | Ave. departure | Precipitation, inches Month Total | Departure from Normal | Total departure |
|---|---|---|---|---|---|---|---|
| Eureka | May | 55.6 | -0.5 | | 2.89 | 0.30 | |
| | June | 67.8 | 2.8 | | 3.95 | 0.12 | |
| B2 | July | 72.4 | 0.0 | | 2.51 | 0.06 | |
| | Aug. | 71.6 | 0.9 | | 0.68 | -1.73 | |
| | Sept. | 59.9 | -0.2 | | 1.92 | 0.60 | |
| | Oct. | 45.2 | -2.4 | 0.1 | 1.02 | 0.05 | -0.60 |
| | First frost 30° - Sept. 26 | | | | 12.97 | | |
| Redfield 6E | May | 58.9 | | | 3.09 | | |
| | June | 69.9 | | | 3.66 | | |
| C1 | July | 74.0 | | | 2.35 | | |
| | Aug. | 73.5 | | | 0.25 | | |
| | Sept. | 64.4 | | | 0.85 | | |
| | Oct. | 48.4 | | | 1.26 | | |
| | First frost 27° - Sept. 27 | | | | 11.46 | | |
| Milbank | May | 60.0 | 1.4 | | 2.83 | | |
| | June | 70.3 | 2.5 | | 4.22 | | |
| D1 | July | 74.2 | 0.0 | | 1.79 | | |
| | Aug. | 73.0 | 0.8 | | 2.23 | | |
| | Sept. | 62.8 | 0.5 | | 2.29 | | |
| | Oct. | 48.8 | -1.7 | 0.6 | 2.41 | | |
| | First frost 31° - Oct. 7 | | | | 15.77 | | |
| Brookings | May | 56.4 | -1.2 | | 5.66 | 2.87 | |
| 2 NE | June | 66.8 | -0.3 | | 4.22 | 0.27 | |
| D3 | July | 71.0 | -2.2 | | 2.44 | 0.29 | |
| | Aug. | 68.5 | -2.7 | | 1.24 | -1.73 | |
| | Sept. | 58.2 | -3.1 | | 1.19 | -0.84 | |
| | Oct. | 44.7 | -4.8 | -2.4 | 2.72 | 1.50 | +2.36 |
| | First frost 28° - Oct. 3 | | | | 17.47 | | |
| Bridgewater | May | 63.4 | | | 2.60 | | |
| | June | 72.2 | | | 3.20 | | |
| D4 | July | 76.3 | | | 2.46 | | |
| | Aug. | 75.2 | | | 1.04 | | |
| | Sept. | 64.8 | | | 2.04 | | |
| | Oct. | 50.5 | | | 2.47 | | |
| | First frost 31° - Oct. 9 | | | | 13.81 | | |
| Centerville | May | 63.6 | | | 3.65 | | |
| 6 SE | June | 71.7 | | | 2.48 | | |
| | July | 76.0 | | | 1.47 | | |
| E | Aug. | 75.2 | | | 0.85 | | |
| | Sept. | 64.8 | | | 3.18 | | |
| | Oct. | 49.1 | | | 3.94 | | |
| | First frost 31° - Sept. 26 | | | | 15.57 | | |

*Based upon reports of Monthly Climatological Data, U.S. Dept. of Commerce

## Hybrid Entry Procedure

Hybrids entered are submitted by the participating commercial concerns and they designate the locations where their entries are to be grown. Hybrids that were registered with the South Dakota State Department of Agriculture prior to March 20, 1970 were eligible for entry. A fee was charged for each entry in each area except for entries included by Experiment Station personnel. Either closed or open pedigree hybrids were eligible and each was allowed to be entered once in each area. A listing of the companies with their brand and varieties entered at various locations is presented in Table 21.

## Experimental Procedure

The entries in each test were planted in four or more replications. The numbers 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 determine the plot size and number of replications. The plot size, populations and related data are presented in Table 4.

TABLE 4. FIELD METHODS FOR THE 1970 CORN TRIAL SITES

| Area | Table No. | Number of Replications Harvested | Method of Planting | Population Desired or Obtained | Row Number of | Row Width, Inches | Row Length, Feet |
|---|---|---|---|---|---|---|---|
| B2 | 7 | 5 | drilled | 9,000 | 1 | 36 | 39 |
| C1-dry | 15 | 4 | drilled | 10,000 | 1 | 36 | 42 |
| C1-irr. | 16 | 4 | drilled | 18,000[a] | 1 | 36 | 42 |
| C1-irr. | 16 | 4 | drilled | 22,000[a] | 1 | 36 | 42 |
| C2 | 12 | 5 | drilled | 10,000 | 1 | 40 | 39 |
| D1 | 6 | 4 | drilled | 12,000[a] | 1 | 36 | 37 |
| D1 | 6 | 4 | drilled | 16,000[a] | 1 | 36 | 37 |
| D3 | 8 | 4 | drilled | 12,000 | 1 | 40 | 41 |
| D3 | 8 | 4 | drilled | 16,000 | 1 | 40 | 41 |
| D4 | 11 | 4 | drilled | 12,000[a] | 1 | 38 | 41 |
| D4 | 11 | 4 | drilled | 16,000[a] | 1 | 38 | 41 |
| E | 19 | 4 | drilled | 16,000[a] | 1 | 30 | 37 |
| E | 19 | 4 | drilled | 20,000[a] | 1 | 30 | 37 |

[a] No significant difference between populations; mean of two reported in tables.

Recommended organic phosphate insecticides were used at the C1, C2, D3, D4, and E sites for corn rootworm control. A recommended short-residual preemergence herbicide was used at all but the D3 site where Atrazine was used.

All plots were seeded as drilled corn using cone-seeders mounted above commercial flexi-planter units with double-disc openers. The planting rate was 20% greater than desired and the plots were thinned to the desired population where it was possible or necessary. At the C1 irrigated site the hail storm and subsequent soil crusting caused excess stand reductions and thinning was limited.

TABLE 5. HARVEST AND MOISTURE DETERMINATIONS FOR THE 1970 TRIALS

| Area | Harvest Method | Samples Used for Moisture Determination | Moisture Determined |
|---|---|---|---|
| B2 | Hand picked | Ear sections | Oven-dried |
| C1-dry | Picker-sheller | Shelled corn | Electronically |
| C1-irr. | Picker-sheller | Shelled corn | Electronically |
| C2 | Hand picked | Ear sections | Oven-dried |
| D1 | Picker-sheller | Shelled corn | Electronically |
| D3 | Picker-sheller | Shelled corn | Electronically |
| D4 | Picker-sheller | Shelled corn | Electronically |
| E | Picker-sheller | Shelled corn | Electronically |

## Measurements of Performance

Yield. The yield reported for each hybrid is the average obtained from the yield weights of all replications, expressed as bushels per acre of No. 2 corn at 15.5% moisture. Varieties of equal potential may yield differently because of variations in slope, soil fertility and stand. Mathematical determinations have been made to ascertain whether yield differences obtained were caused by variations in environment or were true varietal differences.

Duncan's Multiple Range Test (5% level) was used to determine whether significant differences occurred. The line drawn between any two entry means in the 1970 yield data indicates that there is no significant difference between entries above that line and the top mean yield. Yields below the line are significantly less than the top mean yield of that table.

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

Performance Rating. Undue delays should be held to a minimum if farm operations are to be efficient and provide high economic returns. Delaying the harvest and additional drying costs can be reduced if an operator can produce sound, dry corn. Grain yield and moisture percentage are of prime importance. To the cash grain operator who does not turn livestock into the field after harvest, the more stalks standing so that the ears will go through his machine the higher his return per acre. Because of the importance of these three factors, yield, dry matter and upright stalks, the three results in the tables presenting this information are used to determine this rating or performance score.

The yields in each test were converted to percentages by comparing them to the mean yield of that test. Similar calculations were made for moisture and stalks broken below the ear at harvest time after first subtracting the moisture content or stalks broken from 100% so that the varieties would be ranked according to their ability to produce sound, upright corn rather than soft, lodged corn.

The performance ratings that appear in the tables were computed as follows:

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

Lodging. Root lodging was not a serious problem. It is presented in only a few tables and the percentages are high for only a few entries. Yield losses from root lodging were minimal in 1970. On the other hand, drought stresses combined with high corn borer infestations effected severe stalk lodging damage in several trials. Corn borers were especially severe at the Area E trial. Stalk lodging is recorded in the "Percent stalks broken" column of the tables.

Normally ears dropped are not counted in mechanically harvested corn. It is a penalty of machine harvest methods and losses usually are small. The losses were so severe at the SE Farm that help was added to pick up and count the ears dropped. The drought, corn borers and a strong wind had nearly denuded some entries of ears. The dropped ears are shown as "Percent ears dropped" in the tables.

Use of the Tables. South Dakota conditions are generally quite different from those in the mid-western corn belt. Most of the crop adaptation areas have conditions common to the northern plains; limited frost-free growing periods, limited precipitation and high summer temperatures. Corn hybrids that provide a satisfactory yield of harvestable corn that can be stored without additional costly handling are desirable. The performance score provides information on these factors in a weighted fashion.

In choosing a hybrid, first check those yielding the most. Then look for entries with below average moisture and good standability. The results will generally be similar to that of the performance score. Finally, check the performance over a "several-year period", if available, as the average of several years is considerably more reliable than data for only one year. When planting a new hybrid the acreage should be limited until its' adaptation to the environment on the particular farm is known.

TABLE 6. CORN PERFORMANCE TRIAL, AREA D1, WHETSTONE VALLEY RESEARCH FARM, MILBANK, 1970

| Brand and Variety | Cross | Performance Rating | Percent Moisture 1970 | Percent Moisture 69-70 | Percent Root Lodging | Percent Stalks Broken | Mean Yield, B/A 1970 | Mean Yield, B/A 69-70 |
|---|---|---|---|---|---|---|---|---|
| Northrup, King PX476 | 3X | 1 | 16.4 | 21.1 | 1.8 | 3.6 | 73.8 | 73.8 |
| SDAES SD Ex70 | 3X | 4 | 20.0 | 23.9 | 6.1 | 15.8 | 70.7 | 73.5 |
| Coop S-201 | 2X | 3 | 22.2 | | 1.4 | 10.1 | 70.7 | |
| SDAES PP103 | 4X | 2 | 17.4 | | 29.0 | 10.8 | 69.7 | |
| Sokota MS-59 | M2X | 5 | 18.7 | | 0.4 | 14.4 | 69.5 | |
| Renk RK-44 | 2X | 10 | 22.1 | | 0.7 | 11.0 | 67.1 | |
| SDAES SD Ex77 | 4X | 8 | 19.4 | | 14.0 | 13.2 | 66.9 | |
| SDAES SD Ex72 | M3X | 11 | 17.9 | | 35.3 | 22.3 | 66.4 | |
| SDAES PP127 | 4X | 6 | 17.3 | | 1.5 | 2.6 | 66.3 | |
| Pioneer 3784 | 2X | 7 | 19.2 | | 0.3 | 7.0 | 66.1 | |
| Pioneer 3579 | M2X | 13 | 21.0 | | 1.8 | 10.8 | 65.2 | |
| Pioneer 3773 | 2X | 12 | 20.0 | 25.4 | 0.4 | 8.5 | 64.3 | 70.6 |
| SDAES SD Ex59 | 2X | 9 | 15.8 | | 0.0 | 10.7 | 64.2 | |
| Northrup, King PX525 | 3X | 16 | 19.7 | | 0.7 | 9.7 | 62.1 | |
| SDAES SD Ex48 | M3X | 15 | 17.3 | | 22.4 | 11.2 | 62.0 | |
| Pioneer 3715 | 3X | 19 | 21.1 | 25.9 | 4.0 | 7.9 | 61.5 | 65.6 |
| Sokota TS-67 | 2X | 24 | 22.8 | | 1.1 | 16.3 | 61.3 | |
| Western KX-45 | 2X | 20 | 19.6 | | 3.6 | 12.1 | 61.0 | |
| Northrup, King PX20 | 2X | 14 | 16.6 | | 1.8 | 1.4 | 60.4 | |
| Coop T-106 | 3X | 18 | 18.8 | | 2.6 | 5.6 | 60.2 | |
| SDAES PP128 | 4X | 17 | 17.9 | | 7.1 | 4.6 | 59.9 | |
| SDAES SD420 | 4X | 27 | 22.3 | 26.8 | 8.5 | 14.9 | 59.1 | 50.7 |
| Western KX-33 | 2X | 21 | 18.5 | | 0.7 | 5.7 | 58.2 | |
| Northrup, King PX422 | 3X | 22 | 16.0 | 19.5 | 1.4 | 6.8 | 56.9 | 66.0 |
| SDAES PP129 | 4X | 25 | 17.5 | | 7.5 | 6.7 | 56.5 | |
| Pioneer 3956 | 2X | 23 | 16.7 | 20.8 | 2.5 | 4.3 | 56.3 | 64.7 |
| Sokota TS-55 | 2X | 26 | 18.2 | | 3.4 | 8.7 | 55.8 | |
| Northrup, King PX446 | 3X | 29 | 16.7 | 21.3 | 1.1 | 25.2 | 55.5 | 60.6 |
| SDAES PP112 | M3X | 28 | 18.2 | | 9.5 | 4.4 | 53.4 | |
| SDAES SD Ex63 | 3X | 30 | 20.0 | 25.4 | 4.1 | 12.4 | 53.0 | 60.7 |
| SDAES SD250 | 4X | 32 | 18.2 | 22.4 | 14.3 | 18.1 | 51.4 | 68.0 |
| Northrup, King PX521 | M3X | 31 | 19.1 | | 1.9 | 1.9 | 50.1 | |
| SDAES Ex75 | 3X | 33 | 18.1 | 23.8 | 1.1 | 14.4 | 49.2 | 62.7 |
| SDAES SD Ex52 | 3X | 34 | 17.7 | 23.3 | 4.2 | 14.4 | 46.5 | 60.0 |
| SDAES SD270 | 4X | 35 | 18.9 | 23.7 | 6.5 | 16.7 | 43.9 | 52.9 |
| | | Means | 18.7 | | 6.0 | 10.4 | 60.4 | |

C.V. = 21.7%

TABLE 7. CORN PERFORMANCE TRIAL, AREA B2, NORTHCENTRAL SUBSTATION, EUREKA, 1970

| Brand and Variety | Cross | Performance Score | Percent Moisture Ear Corn | Percent Stalks Broken | Percent Ears Dropped | Mean Yield, B/A |
|---|---|---|---|---|---|---|
| SDAES Ex48 | M3X | 2 | 21.2 | 15.5 | 0.0 | 47.0 |
| SDAES PP126 | 4X | 4 | 20.8 | 20.9 | 0.0 | 45.2 |
| Pioneer 3862 | 4X | 7 | 20.5 | 38.4 | 0.0 | 44.3 |
| SDAES Ex59 | 2X | 1 | 15.8 | 2.7 | 0.0 | 44.2 |
| SDEAS PP127 | 4X | 3 | 19.1 | 13.5 | 0.0 | 44.2 |
| SDAES Ex72 | M3X | 9 | 22.9 | 33.3 | 0.0 | 43.8 |
| SDAES PP130 | M3X | 6 | 21.4 | 26.5 | 0.0 | 43.8 |
| Northrup, King PX 417 | 3X | 5 | 18.2 | 14.0 | 0.0 | 42.2 |
| Western K-1002 | 4X | 10 | 19.5 | 31.0 | 0.0 | 42.1 |
| SDAES SD230 | 4X | 24 | 30.7 | 40.0 | 0.0 | 42.1 |
| Pioneer 388 | 4X | 17 | 23.9 | 24.5 | 0.0 | 39.9 |
| Sokota TS-24 | 2X | 8 | 20.0 | 6.5 | 0.0 | 39.4 |
| Pioneer 3959 | 3X | 12 | 19.2 | 20.4 | 0.0 | 39.0 |
| Pioneer 3956 | 2X | 11 | 17.6 | 17.4 | 0.0 | 38.7 |
| Western KX-33 | 2X | 15 | 24.6 | 12.5 | 0.0 | 38.4 |
| Pioneer 3872 | 4x | 14 | 16.8 | 26.3 | 0.0 | 38.2 |
| SDAES PP129 | 4X | 13 | 23.4 | 5.7 | 0.0 | 37.7 |
| SDAES SD220 | 4X | 22 | 20.8 | 31.6 | 0.0 | 37.6 |
| Northrup, King PX 419 | 3X | 20 | 24.1 | 17.0 | 0.0 | 37.3 |
| SDAES SD240 | 4X | 29 | 29.8 | 67.9 | 0.0 | 37.2 |
| Pioneer 3980 | 3X | 18 | 18.1 | 20.5 | 0.0 | 37.1 |
| Northrup, King PX 428 | 3X | 16 | 23.0 | 5.8 | 0.0 | 36.8 |
| Coop T-106 | 3X | 19 | 25.3 | 4.7 | 0.0 | 36.8 |
| Sokota 219 | 4X | 25 | 21.5 | 24.8 | 0.0 | 36.0 |
| SDAES PP112 | M3X | 23 | 23.0 | 13.6 | 0.0 | 35.5 |
| Northrup, King PX 442 | 3X | 26 | 22.1 | 21.6 | 0.0 | 35.0 |
| SDAES PP132 | M3X | 21 | 17.5 | 13.1 | 0.0 | 33.8 |
| Coop S-102 | 2X | 28 | 28.7 | 37.0 | 0.0 | 33.3 |
| Coop D-110 | 4X | 27 | 27.6 | 13.0 | 0.0 | 32.2 |
| | | Means | 22.0 | 20.8 | | 39.3 |

C.V. = 14.6%

TABLE 8. CORN PERFORMANCE TRIAL, AREA D3, AGRONOMY FARM, BROOKINGS, 1970

| Brand and Variety | Cross | Performance Score | Percent Moisture | Percent Stalks Broken | Yield, Bushels per Acre | | |
|---|---|---|---|---|---|---|---|
| | | | | | Mean | 11,800/A | 15,900/A |
| Pioneer 3773 | 2X | 1 | 20.7 | 1.5 | 110.5 | 105.7 | 115.1 |
| Pioneer 3784 | 2X | 2 | 19.7 | 0.9 | 109.8 | 102.4 | 116.9 |
| Coop S-201 | 2X | 3 | 20.7 | 5.3 | 105.5 | 99.2 | 111.9 |
| McCurdy MSX 444 | 2X | 4 | 21.3 | 2.1 | 104.1 | 98.2 | 110.0 |
| SDAES PP117 | M3X | 5 | 20.2 | 7.6 | 103.9 | 93.4 | 114.3 |
| Western KX-55 | 2X | 6 | 21.3 | 5.0 | 103.7 | 98.2 | 109.2 |
| McCurdy 3X4 | 2X | 7 | 19.8 | 6.1 | 101.9 | 96.6 | 107.1 |
| McCurdy 2X4 | 2X | 8 | 21.2 | 2.1 | 101.7 | 102.4 | 101.0 |
| Pioneer 3579 | M2X | 11 | 22.1 | 4.7 | 100.6 | 97.7 | 103.5 |
| SDAES SD Ex70 | 3X | 14 | 22.1 | 7.1 | 100.4 | 92.6 | 108.2 |
| Northrup, King PX 50 | 2X | 12 | 21.5 | 3.8 | 99.8 | 96.5 | 103.1 |
| Maygold 2095 | 3X | 10 | 21.4 | 3.6 | 99.8 | 92.8 | 106.7 |
| Renk RK-44 | 2X | 9 | 20.8 | 3.3 | 99.6 | 94.0 | 105.0 |
| Curry SC-142 | 2X | 13 | 21.0 | 4.1 | 99.4 | 95.2 | 103.6 |
| SDAES PP104 | 4X | 16 | 21.4 | 6.9 | 99.0 | 94.8 | 103.2 |
| Northrup, King PX 545 | 3X | 15 | 21.6 | 3.9 | 98.5 | 92.1 | 104.7 |
| SDAES PP125 | 4X | 17 | 20.1 | 8.1 | 97.9 | 95.9 | 99.9 |
| SDAES SD Ex77 | 4X | 20 | 21.7 | 7.3 | 97.4 | 98.3 | 96.4 |
| Pride R-290 | 2X | 18 | 19.2 | 6.6 | 96.4 | 88.5 | 104.2 |
| Coop T-207 | 3X | 25 | 23.8 | 2.7 | 96.1 | 90.6 | 101.5 |
| Pioneer 3715 | 3X | 22 | 21.6 | 1.8 | 95.0 | 88.9 | 101.2 |
| Northrup, King PX 525 | 3X | 24 | 20.0 | 8.4 | 95.0 | 85.2 | 104.8 |
| Western KX-45 | 2X | 19 | 19.4 | 4.0 | 94.7 | 90.3 | 99.1 |
| SDAES SD Ex75 | 3X | 23 | 19.0 | 6.8 | 94.0 | 86.8 | 101.2 |
| SDAES PP105 | 4X | 31 | 21.2 | 12.0 | 92.9 | 89.0 | 96.6 |
| Northrup, King PX 20 | 2X | 21 | 17.9 | 1.8 | 92.7 | 88.2 | 97.1 |
| Curry SC-141 | 2X | 28 | 21.6 | 1.8 | 92.5 | 92.5 | 92.4 |
| O's Gold SX-1100 | 2X | 27 | 21.0 | 1.7 | 92.4 | 89.5 | 94.3 |
| Sokota MS-59 | M2X | 26 | 19.4 | 3.1 | 92.0 | 83.4 | 100.5 |
| SDAES PP137 | 2X | 30 | 21.7 | 4.7 | 91.7 | 89.1 | 94.2 |
| SDAES SD Ex63 | 3X | 29 | 20.6 | 4.2 | 91.1 | 89.7 | 92.3 |
| SDAES PP138 | 2X | 33 | 20.8 | 7.5 | 90.4 | 81.3 | 99.5 |
| Pride R-369 | 3X | 32 | 21.2 | 2.7 | 89.8 | 86.3 | 93.3 |
| Pioneer 3956 | 2X | 34 | 18.2 | 4.0 | 85.9 | 80.0 | 91.8 |
| McCurdy MSX 22 | 2X | 35 | 20.0 | 4.2 | 85.4 | 77.2 | 93.6 |
| SDAES PP120 | 4X | 38 | 20.8 | 4.4 | 84.3 | 75.5 | 93.2 |
| SDAES SD EX52 | 3X | 36 | 18.4 | 7.3 | 84.0 | 78.5 | 89.3 |
| SOKOTA TS-55 | 2X | 37 | 20.6 | 2.0 | 83.6 | 78.9 | 88.3 |
| Northrup, King PX 521 | M3X | 39 | 19.4 | 5.9 | 83.5 | 76.1 | 90.9 |
| Western KX-33 | 2X | 40 | 19.3 | 6.9 | 82.1 | 89.8 | 84.2 |
| SDAES SD 240 | 4X | 41 | 19.7 | 5.6 | 80.0 | 78.6 | 81.4 |
| SDAES SD 250 | 4X | 43 | 19.1 | 8.8 | 75.0 | 62.7 | 87.2 |
| SDAES SD 270 | 4X | 44 | 19.6 | 5.8 | 74.3 | 70.9 | 77.5 |
| Pioneer 3980 | 3X | 42 | 17.2 | 3.6 | 73.2 | 67.9 | 78.3 |
| Barzen BXL-105-3 | 3X | 45 | 21.0 | 2.2 | 71.1 | 67.8 | 74.3 |
| | | Means | 20.5 | 4.8 | 93.1 | 88.0 | 98.3 |

C.V. = 8.4%

TABLE 9. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA B2 TRIAL, 1966-1970

| Brand and Variety | Percent Moisture | | | | Yield, Bushels per Acre | | | |
|---|---|---|---|---|---|---|---|---|
| | 1966-70 | 1967-70 | 1968-70 | 1969-70 | 1966-70 | 1967-70 | 1968-70 | 1969-70 |
| Northrup-King PX417 | | | 22.9 | 21.5 | | | 37.5 | 33.8 |
| Northrup-King PX428 | | | | 25.3 | | | | 30.8 |
| Northrup-King PX442 | | | 29.6 | 26.8 | | | 40.1 | 35.0 |
| Pioneer 3862 | 30.4 | 31.5 | 31.4 | 27.4 | 39.7 | 37.6 | 40.6 | 41.8 |
| Pioneer 3872 | 26.0 | 26.9 | 27.1 | 25.2 | 39.9 | 35.2 | 37.9 | 33.2 |
| Pioneer 388 | 30.1 | 31.6 | 29.3 | 28.5 | 40.0 | 36.5 | 41.0 | 38.0 |
| Pioneer 3956 | | 29.1 | 31.4 | 23.3 | | 41.3 | 44.5 | 38.3 |
| Pioneer 3959 | | | 27.8 | 29.5 | | | 44.7 | 39.8 |
| SDAES 220 | 25.4 | 26.0 | 28.7 | 24.4 | 36.2 | 35.1 | 36.7 | 31.8 |
| SDAES 230 | 33.5 | 32.6 | 33.7 | 31.1 | 42.8 | 40.4 | 43.1 | 40.0 |
| SDAES 240 | 32.8 | 33.6 | 32.7 | 32.8 | 40.1 | 41.1 | 40.8 | 35.5 |
| SDAES Exp 48 | | | | 24.9 | | | | 41.4 |
| SDAES Exp 59 | | 23.6 | 25.9 | 20.6 | | | 47.4 | 41.7 |
| SDAES Exp 72 | | | 30.2 | 26.9 | | | 44.6 | 39.8 |

TABLE 10. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA D3 TRIALS, 1966-1970

| Brand and Variety | Percent Moisture | | | | Yield, Bushels per Acre | | | |
|---|---|---|---|---|---|---|---|---|
| | 1966-70 | 1967-70 | 1968-70 | 1969-70 | 1966-70 | 1967-70 | 1968-70 | 1969-70 |
| Coop S-201 | | | | 23.1 | | | | 102.4 |
| Curry SC-142 | | | | 23.3 | | | | 99.4 |
| McCurdy 2 X 4 | | | 26.5 | 24.0 | | | 102.2 | 104.8 |
| McCurdy 3 X 4 | 26.8 | 27.1 | 25.3 | 22.5 | 71.9 | 82.2 | 93.2 | 98.8 |
| Northrup-King PX 50 | | | | 23.9 | | | | 99.0 |
| Northrup-King PX 525 | | 29.4 | 25.4 | 23.2 | | 84.3 | 94.0 | 95.5 |
| Northrup-King PX 545 | | | | 24.4 | | | | 101.7 |
| Pioneer 3579 | | | | 24.0 | | | | 97.7 |
| Pioneer 3715 | | 28.2 | 26.3 | 23.6 | | 87.5 | 91.3 | 93.6 |
| Pioneer 3773 | | 28.7 | 225.7 | 22.8 | | 81.9 | 97.6 | 106.2 |
| Pioneer 3956 | | | | 19.7 | | | | 85.4 |
| SDAES 240 | | 23.3 | 24.2 | 22.0 | | 71.8 | 78.3 | 80.9 |
| SDAES 250 | 23.9 | 23.9 | 23.2 | 20.7 | 67.4 | 69.7 | 74.7 | 77.3 |
| SDAES Exp 52 | | 24.1 | 23.4 | 20.6 | | 79.0 | 89.1 | 91.2 |
| SDAES Exp 63 | | 26.6 | 24.7 | 22.9 | | 86.5 | 97.9 | 100.8 |
| SDAES Exp 70 | | | 26.5 | 24.4 | | | 90.7 | 101.3 |
| SDAES Exp 75 | | | | 20.9 | | | | 97.9 |
| Western KX-33 | | | | 20.7 | | | | 86.0 |

TABLE 11. CORN PERFORMANCE TRIAL, CLIFFORD HOFER FARM, AREA D4, BRIDGEWATER, 1970

| Brand and Variety | Cross | Perfor-mance | Percent Moisture | Percent Stalks Broken | Yield, B/A |
|---|---|---|---|---|---|
| Coop S-201 | 2X | 1 | 16.8 | 20.4 | 85.5 |
| Curry SC-142 | 2X | 3 | 17.0 | 16.9 | 83.5 |
| SDAES Ex75 | 3X | 5 | 14.8 | 22.0 | 83.0 |
| SDAES Ex70 | 3X | 9 | 17.5 | 19.1 | 82.9 |
| Trojan TXS102 | 2X | 12 | 16.6 | 22.1 | 82.5 |
| McCurdy 69-109 | 2X | 10 | 17.4 | 17.1 | 82.3 |
| O's Gold SX-1100 | 2X | 4 | 16.4 | 13.4 | 82.0 |
| Renk RK-44 | 2X | 16 | 16.5 | 25.6 | 81.9 |
| Pioneer 3571 | M2X | 2 | 18.2 | 4.3 | 81.9 |
| Curry TC-344 | 3X | 14 | 18.9 | 13.2 | 80.8 |
| McCurdy MSX44 | 2X | 11 | 16.7 | 13.2 | 80.7 |
| Pioneer 3387 | 2X | 6 | 18.6 | 3.0 | 80.2 |
| Pioneer 3390 | M2X | 8 | 17.8 | 5.9 | 80.0 |
| Northrup-King PX50 | 2X | 15 | 16.2 | 15.5 | 79.5 |
| Western KX-55 | 2X | 23 | 16.9 | 24.6 | 79.3 |
| SDAES Ex76 | 2X | 13 | 15.4 | 15.1 | 79.3 |
| Pioneer 3570 | 2X | 7 | 16.8 | 3.9 | 79.0 |
| Coop S-205 | 2X | 9 | 20.8 | 8.7 | 78.4 |
| Maygold F25 | 2X | 18 | 18.6 | 8.4 | 77.7 |
| McCurdy 2 X 4 | 2X | 28 | 17.2 | 22.3 | 77.2 |
| Wilson's WXS-1016 | 2X | 31 | 16.8 | 27.7 | 77.1 |
| Pioneer 3579 | M2X | 17 | 15.6 | 11.8 | 76.9 |
| Pride R-728 | 3X | 22 | 17.8 | 9.0 | 76.1 |
| Wilson's WXS-1118 | 2X | 26 | 16.3 | 17.9 | 75.9 |
| McCurdy 3 X 4 | 2X | 21 | 14.9 | 14.5 | 75.8 |
| Maygold 988 | 4X | 25 | 17.2 | 9.5 | 75.1 |
| Pride R-450 | 2X | 20 | 15.8 | 8.1 | 75.0 |
| Trojan TXS 108 | M2X | 24 | 16.0 | 9.4 | 74.9 |
| Green Acres 473 | 4X | 33 | 22.5 | 10.1 | 74.5 |
| Pioneer 3505 | M2X | 30 | 19.2 | 10.1 | 74.3 |
| McCurdy MSP555 | 3X | 27 | 18.6 | 6.0 | 74.2 |
| SDAES Ex77 | 4X | 34 | 16.6 | 23.4 | 74.1 |
| O's Gold SX-900 | 2X | 29 | 13.6 | 17.4 | 73.2 |
| SDAES Ex63 | 3X | 32 | 15.3 | 20.6 | 73.1 |
| Barzen BXL-110-3 | 3X | 35 | 18.2 | 10.7 | 71.7 |
| Northrup-King PX545 | 3X | 36 | 16.1 | 15.3 | 70.9 |
| Pioneer 3431 | 4X | 37 | 20.5 | 4.5 | 70.4 |
| Coop T-207 | 3X | 28 | 17.8 | 16.3 | 69.8 |
| Northrup-King PX610 | 3X | 39 | 18.1 | 10.0 | 66.8 |
| SDAES PP113 | 4X | 41 | 17.5 | 8.4 | 63.5 |
| Trojan TXS 93 | M2X | 45 | 13.6 | 26.8 | 63.3 |
| Trojan TXS 95 | M2X | 40 | 13.6 | 15.0 | 63.0 |
| Green Acres L17 | 4X | 47 | 21.4 | 11.2 | 62.5 |
| Pride R-539 | 3X | 43 | 17.1 | 12.2 | 62.2 |
| O's Gold SX-21 | 2X | 42 | 18.3 | 7.8 | 61.8 |
| Maygold 2095 | 3X | 44 | 17.0 | 11.7 | 61.6 |
| Green Acres 447 | M3X | 50 | 20.4 | 10.6 | 60.2 |
| Pioneer 3773 | 2X | 46 | 16.6 | 2.1 | 58.1 |
| SDAES SD420 | 4X | 52 | 16.6 | 15.4 | 58.0 |
| Trojan TXS 85 | M2X | 48 | 13.6 | 8.7 | 57.0 |
| Trojan TXS 99 | 3X | 51 | 15.4 | 12.9 | 56.7 |
| SDAES PP128 | 4X | 53 | 14.7 | 20.5 | 56.0 |
| O's Gold SX-1000 | 2X | 49 | 14.0 | 7.7 | 55.7 |
| SDAES SD604 | 4X | 56 | 17.6 | 21.0 | 52.3 |
| | | Means | 17.0 | 13.7 | 72.3 |

C.V. = 15.9%

TABLE 12. CORN PERFORMANCE TRIAL, AREA C2, WILLIAM FIJALA FARM, GEDDES, 1970

| Brand and Variety | Cross | Performance Score | Percent Moisture Ear Corn | Percent Stalks Broken | Percent Ears Dropped | Yield, B/A |
|---|---|---|---|---|---|---|
| O's Gold SX-1100 | 2X | 1 | 17.6 | 2.8 | 3.5 | 47.0 |
| Wilson's WXS-1016 | 2X | 2 | 16.9 | 3.9 | 8.5 | 45.4 |
| Northrup-King PX 50 | 2X | 4 | 17.2 | 9.1 | 11.7 | 44.6 |
| Northrup-King PX 545 | 3X | 3 | 17.5 | 0.7 | 10.3 | 44.1 |
| Pride R-450 | 2X | 5 | 16.4 | 2.6 | 11.1 | 42.9 |
| Western KX-55 | 2X | 7 | 19.5 | 5.8 | 8.3 | 41.0 |
| SDAES PP 124 | M3X | 6 | 15.2 | 3.6 | 2.2 | 39.7 |
| Curry SC-142 | 2X | 12 | 19.4 | 12.4 | 2.8 | 38.9 |
| Northrup-King PX 610 | 3X | 11 | 18.1 | 10.9 | 8.5 | 38.5 |
| Pride 568 | 4X | 9 | 19.0 | 2.7 | 2.0 | 38.5 |
| Coop T-207 | 3X | 13 | 20.2 | 5.5 | 8.3 | 38.3 |
| SDAES PP 134 | 4X | 8 | 15.4 | 8.3 | 4.5 | 38.3 |
| Wilson's WXS-1118 | 2X | 10 | 17.2 | 5.7 | 10.4 | 38.1 |
| SDAES PP 120 | 4X | 14 | 17.1 | 5.2 | 11.8 | 36.9 |
| Western KX-45 | 2X | 15 | 17.6 | 5.3 | 10.7 | 36.7 |
| Green Acres 473 | 4X | 29 | 26.8 | 13.4 | 1.4 | 36.4 |
| Pioneer 3505 | M2X | 25 | 25.9 | 16.6 | 4.9 | 35.8 |
| Pioneer 3570 | 2X | 16 | 18.2 | 1.7 | 0.8 | 35.6 |
| Pioneer 3390 | M2X | 22 | 25.1 | 7.6 | 3.8 | 35.4 |
| Pride R-728 | 3X | 18 | 16.7 | 12.0 | 4.8 | 35.2 |
| SDAES PP114 | M3X | 17 | 16.1 | 6.4 | 7.3 | 35.0 |
| Pioneer 3715 | 3X | 20 | 18.8 | 9.2 | 5.3 | 35.0 |
| Pioneer 3579 | M2X | 21 | 18.8 | 11.3 | 6.4 | 34.4 |
| Curry TC-344 | 3X | 23 | 21.3 | 9.3 | 3.4 | 34.3 |
| Pioneer 3773 | 2X | 19 | 16.3 | 1.4 | 4.2 | 33.5 |
| SDAES SD 270 | 4X | 26 | 16.1 | 25.7 | 9.3 | 33.1 |
| Green Acres 447 | M3X | 28 | 23.8 | 8.2 | 3.4 | 32.3 |
| Pioneer 3431 | 4X | 27 | 21.3 | 4.3 | 0.0 | 31.2 |
| Pioneer 3571 | M2X | 31 | 26.6 | 1.4 | 0.7 | 31.1 |
| Green Acres L17 | 4X | 32 | 23.5 | 7.1 | 0.9 | 30.4 |
| O'S Gold SX-21 | 2X | 29 | 18.9 | 7.2 | 2.9 | 30.3 |
| SDAES PP135 | 4X | 30 | 16.4 | 14.2 | 8.5 | 29.4 |
| Burt's 649A | 3X | 33 | 19.4 | 7.7 | 5.6 | 29.3 |
| O's Gold SX-5500 | 2X | 34 | 31.0 | 15.5 | 5.5 | 28.4 |
| | | Means | 19.6 | 7.8 | 5.7 | 36.3 |

C.V. = 15.4%

TABLE 13. TWO-, AND THREE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA D4 TRIALS, 1968-1970

| Brand and Variety | Percent Moisture | | Yield, Bushels per Acre | |
|---|---|---|---|---|
| | 1968-70 | 1969-70 | 1968-70 | 1969-70 |
| Curry SC-142 | 19.5 | 16.9 | 62.9 | 74.4 |
| Green Acres L17 | | 25.5 | | 63.7 |
| Green Acres 447 | | 25.5 | | 63.3 |
| McCurdy's 2 X 4 | 21.2 | 19.4 | 59.7 | 73.0 |
| McCurdy's 3 X 4 | 16.8 | 15.6 | 58.4 | 69.3 |
| Northrup-King PX610 | 22.7 | 20.3 | 61.7 | 75.3 |
| Pioneer 3387 | | 24.1 | | 69.9 |
| Pioneer 3390 | 28.2 | 24.8 | 57.9 | 73.5 |
| Pioneer 3505 | 26.8 | 21.3 | 56.4 | 67.9 |
| Pioneer 3571 | | 20.7 | | 68.1 |
| SDAES SD 420 | 20.9 | 18.6 | 49.7 | 59.3 |
| SDAES SD 604 | 24.1 | 25.6 | 36.5 | 48.4 |
| SDAES SD Ex 76 | | 17.6 | | 72.5 |
| Wilson's WXS-1016 | | 17.6 | | 77.5 |
| Wilson's WXS-1118 | | 15.2 | | 71.8 |

TABLE 14. TWO-, THREE-, AND FOUR-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA C2 TRIAL, 1967-1970

| Brand and Variety | Percent Moisture | | | Yield, Bushels per Acre | | |
|---|---|---|---|---|---|---|
| | 1967-70 | 1968-70 | 1969-70 | 1967-70 | 1968-70 | 1969-70 |
| Northrup-King PX 50 | 24.2 | 23.9 | 21.8 | 56.6 | 57.1 | 57.5 |
| Northrup-King PX 610 | 24.7 | 24.5 | 21.9 | 57.0 | 59.9 | 59.9 |
| Pioneer 3390 | | 30.2 | 28.9 | | 58.1 | 59.2 |
| Pioneer 3505 | | 29.8 | 26.2 | | 56.3 | 54.6 |
| Pioneer 3570 | | 25.1 | 23.0 | | 55.2 | 55.0 |
| Pioneer 3579 | | | 21.6 | | | 52. |
| Pioneer 315 | 31.9 | 23.1 | 20.3 | 50.4 | 54.0 | 57.5 |
| Pioneer 3773 | | | 18.9 | | | 54.9 |
| SDAES SD 270 | 17.1 | 17.5 | 16.9 | 44.3 | 48.2 | 47.1 |

TABLE 15. CORN PERFORMANCE TRIAL, AREA C1, (DRYLAND), REDFIELD DEVELOPMENT FARM, REDFIELD, 1970

| Brand and Variety | Cross | Performance Score | Percent Moisture | Percent Stalks Broken | Yield, B/A |
|---|---|---|---|---|---|
| SDAES Ex 70 | 3X | 1 | 18.2 | 9.7 | 61.4 |
| SDAES Ex 77 | 4X | 3 | 18.5 | 22.1 | 54.1 |
| Pride R-200A | 2X | 2 | 17.5 | 2.1 | 53.7 |
| Curry SC-142 | 2X | 4 | 19.4 | 8.3 | 52.3 |
| O's Gold SX-1100 | 2X | 9 | 20.8 | 18.6 | 51.1 |
| Western KX-45 | 2X | 7 | 17.3 | 14.9 | 50.2 |
| Western K-1175 | 4X | 5 | 17.8 | 1.0 | 50.1 |
| Pioneer 3956 | 2X | 6 | 14.4 | 8.7 | 48.7 |
| Coop S-102 | 2X | 8 | 16.8 | 2.0 | 48.2 |
| SDAES PP 133 | 4X | 10 | 15.6 | 11.5 | 47.7 |
| Coop S-201 | 2X | 11 | 19.1 | 4.0 | 47.4 |
| SDAES SD 230 | 4X | 14 | 16.7 | 17.2 | 46.8 |
| Coop T-106 | 3X | 12 | 16.5 | 3.6 | 46.4 |
| SDAES PP 126 | 4X | 13 | 15.1 | 10.8 | 45.9 |
| Pioneer 3773 | 2X | 15 | 17.7 | 9.6 | 45.5 |
| Barzen BXL-95-SP | 2X | 17 | 16.6 | 22.0 | 45.4 |
| SDAES SD 240 | 4X | 18 | 16.8 | 24.1 | 44.9 |
| Pioneer 3784 | 2X | 16 | 18.0 | 2.1 | 43.9 |
| Curry SC-141 | 2X | 22 | 21.0 | 17.3 | 43.2 |
| SDAES Ex 42 | 3X | 19 | 15.5 | 8.8 | 41.7 |
| Coop D-110 | 4X | 21 | 16.9 | 3.2 | 40.7 |
| SDAES PP 127 | 4X | 20 | 15.7 | 1.0 | 40.2 |
| Pride R-369 | 3X | 24 | 18.4 | 8.4 | 39.4 |
| Northrup-King PX 442 | 3X | 23 | 15.1 | 4.9 | 38.5 |
| SDAES PP 118 | 4X | 25 | 16.1 | 7.1 | 37.4 |
| SDAES Ex 59 | 2X | 26 | 14.5 | 2.3 | 35.7 |
| Western KX-33 | 2X | 27 | 16.1 | 1.9 | 35.7 |
| SDAES Ex 75 | 3X | 29 | 16.8 | 8.0 | 35.6 |
| Pioneer 3980 | 3X | 31 | 14.5 | 27.0 | 35.1 |
| Northrup-King PX 446 | 3X | 30 | 15.6 | 11.6 | 34.6 |
| Northrup-King PX 476 | 3X | 28 | 14.8 | 5.8 | 34.6 |
| Pioneer 3935 | 2X | 34 | 15.7 | 18.5 | 32.0 |
| SDAES SD 250 | 4X | 32 | 16.3 | 7.0 | 32.0 |
| Pride R-290 | 2X | 33 | 16.6 | 6.5 | 31.1 |
| Barzen BXL-95-3 | 3X | 35 | 16.6 | 4.3 | 29.8 |
| | | Means | 16.8 | 9.4 | 42.8 |

C.V. = 21.1%

TABLE 16. CORN PERFORMANCE TRIAL, AREA C1 (IRRIGATED), REDFIELD DEVELOPMENT FARM, REDFIELD, 1970

| Brand and Variety | Cross | Performance Score | Percent Moisture | Percent Stalks Broken | Yield, B/A |
|---|---|---|---|---|---|
| Curry SC-142 | 2X | 1 | 24.8 | 1.6 | 131.6 |
| McCurdy 2 X 4 | 2X | 2 | 24.8 | 3.2 | 128.1 |
| Coop S-201 | 2X | 3 | 24.9 | 3.8 | 123.0 |
| O's Gold SX-1100 | 2X | 5 | 23.3 | 3.9 | 119.2 |
| Pride R-200A | 2X | 4 | 20.0 | 0.6 | 117.3 |
| Coop S-205 | 2X | 10 | 31.2 | 0.0 | 114.9 |
| SDAES Ex 70 | 3X | 7 | 23.9 | 6.7 | 114.8 |
| SDAES PP 117 | M3X | 8 | 21.3 | 10.5 | 111.3 |
| Western KX-55 | 2X | 12 | 24.2 | 5.9 | 110.0 |
| O's Gold SX-900 | 2X | 6 | 18.8 | 2.0 | 109.9 |
| Northrup-King PX545 | 3X | 9 | 23.1 | 2.5 | 109.4 |
| Curry SC-141 | 2X | 13 | 24.2 | 5.0 | 108.7 |
| SDAES Ex 63 | 3X | 11 | 21.5 | 5.5 | 107.5 |
| SDAES Ex 77 | 4X | 17 | 22.6 | 14.2 | 107.5 |
| SDAES PP 122 | M3X | 14 | 23.3 | 0.9 | 106.0 |
| McCurdy MSP 333 | 3X | 18 | 24.9 | 2.1 | 104.8 |
| Northrup-King PX 525 | 3X | 15 | 21.3 | 4.5 | 103.7 |
| Western KX-45 | 2X | 16 | 21.5 | 3.1 | 103.0 |
| Barzen BXL-110-SC | 2X | 27 | 26.6 | 2.8 | 101.9 |
| McCurdy MSX 22 | 2X | 21 | 22.3 | 1.8 | 101.4 |
| Pioneer 3773 | 2X | 19 | 21.2 | 1.6 | 101.0 |
| SDAES PP 137 | 2X | 22 | 22.7 | 0.6 | 100.6 |
| SDAES PP 104 | 4X | 26 | 22.8 | 7.5 | 100.5 |
| SDAES PP 138 | 2X | 30 | 22.3 | 9.3 | 98.2 |
| Pride R-369 | 3X | 28 | 22.6 | 2.5 | 98.0 |
| Pioneer 3956 | 2X | 20 | 17.9 | 2.3 | 97.9 |
| Pioneer 3784 | 2X | 24 | 19.3 | 5.3 | 97.8 |
| Barzen BXL-100-3 | 3X | 29 | 20.8 | 4.9 | 96.7 |
| Northrup-King PX 476 | 3X | 25 | 18.3 | 2.8 | 95.9 |
| Northrup-King PX 20 | 2X | 23 | 17.1 | 1.9 | 95.7 |
| Western KX-33 | 2X | 31 | 20.3 | 2.0 | 94.0 |
| Coop T-207 | 3X | 38 | 26.4 | 1.4 | 91.6 |
| Pride R-290 | 2X | 36 | 21.9 | 4.1 | 90.5 |
| McCurdy MSP 111 | 3X | 33 | 19.0 | 0.6 | 89.9 |
| Northrup-King PX 442 | 3X | 32 | 17.1 | 3.7 | 89.8 |
| SDAES SD 250 | 4X | 35 | 19.8 | 3.9 | 89.7 |
| Pioneer 3935 | 2X | 34 | 18.1 | 0.7 | 88.0 |
| SDAES SD 240 | 4X | 39 | 20.5 | 7.6 | 85.9 |
| SDAES Ex 52 | 3X | 40 | 18.3 | 12.1 | 84.3 |
| SDAES SD 270 | 4X | 41 | 21.0 | 8.3 | 83.2 |
| Pioneer 3980 | 3X | 37 | 16.2 | 2.0 | 82.7 |
| O's Gold SX-1000 | 2X | 42 | 18.9 | 3.8 | 73.1 |
| | | Means | 20.7 | 4.1 | 101.4 |

C.V. = 12.9%

TABLE 17. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE DRYLAND AREA C1 TRIAL, 1966-1970

| Brand and Variety | Percent Moisture | | | | Yield, Bushels per Acre | | | |
|---|---|---|---|---|---|---|---|---|
| | 1966-70 | 1967-70 | 1968-70 | 1969-70 | 1966-70 | 1967-70 | 1968-70 | 1969-70 |
| Curry SC-142 | | | 27.6 | 26.1 | | | 63.3 | 54.7 |
| Northrup-King PX 442 | | | | 19.8 | | | | 39.1 |
| Northrup-King PX 446 | | 20.4 | 21.4 | 20.8 | | 54.1 | 51.4 | 48.0 |
| Northrup-King PX 476 | | | | 20.3 | | | | 52.1 |
| Pioneer 3935 | | 20.0 | 20.4 | 20.1 | | 53.7 | 48.9 | 47.2 |
| Pioneer 3956 | | 21.6 | 21.2 | 21.0 | | 53.2 | 52.8 | 43.8 |
| SDAES SD 230 | | 23.4 | 23.0 | 21.2 | | 54.4 | 54.8 | 48.5 |
| SDAES SD 240 | 25.1 | 24.1 | 24.1 | 22.2 | 54.2 | 53.4 | 52.5 | 44.9 |
| SDAES SD 250 | 23.2 | 22.4 | 22.8 | 21.7 | 55.6 | 50.6 | 47.3 | 38.3 |
| SDAES SD Ex 59 | | 18.4 | 19.0 | 17.8 | | 52.1 | 49.4 | 42.5 |
| SDAES SD Ex 70 | | | | 23.6 | | | | 57.8 |
| Western KX-33 | | | | 21.2 | | | | 46.0 |
| Western K-1175 | | | | 23.2 | | | | 50.7 |

TABLE 18. TWO-, THREE-, AND FOUR-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE IRRIGATED AREA C1 TRIAL, 1967-1970

| Brand and Variety | Percent Moisture | | | Yield, Bushels per Acre | | |
|---|---|---|---|---|---|---|
| | 1967-70 | 1968-70 | 1969-70 | 1967-70 | 1968-70 | 1969-70 |
| Barzen BXL-100-3 | | | 23.9 | | | 113.1 |
| Curry SC-142 | | | 27.5 | | | 143.9 |
| McCurdy's 2 X 4 | | | 27.5 | | | 137.6 |
| Northrup-King PX 525 | 28.0 | 26.2 | 24.9 | 130.3 | 126.4 | 121.0 |
| Northrup-King PX 545 | | | 25.9 | | | 122.6 |
| Pioneer 3935 | 25.6 | 23.5 | 21.1 | 110.1 | 102.3 | 101.6 |
| Pioneer 3956 | 23.5 | 21.9 | 20.5 | 112.7 | 109.4 | 108.9 |
| SDAES SD 240 | 26.4 | 25.3 | 23.3 | 105.5 | 102.7 | 101.7 |
| SDAES SD 250 | 26.3 | 25.3 | 22.8 | 109.0 | 103.3 | 102.8 |
| SDAES SD 270 | 25.9 | 25.9 | 24.0 | 108.9 | 100.5 | 99.6 |
| SDAES SD Ex 52 | 23.4 | 22.4 | 21.2 | 117.2 | 110.9 | 106.4 |
| SDAES SD Ex 63 | 27.4 | 29.8 | 25.2 | 136.0 | 131.9 | 131.2 |
| SDAES SD Ex 70 | | | 26.2 | | | 128.6 |
| Western KX-33 | | | 27.1 | | | 133.7 |
| Western KX-55 | | | 22.5 | | | 110.7 |

TABLE 19. CORN PERFORMANCE TRIAL, AREA E, SOUTHEAST EXPERIMENT FARM, BERESFORD, 1970

| Brand and Variety | Cross | Performance Rating | Percent Moisture | Percent Stalks Broken | Percent Ears Dropped | Yield, B/A |
|---|---|---|---|---|---|---|
| Pioneer 3387 | 2X | 1 | 20.9 | 3.4 | 2.7 | 82.9 |
| Western KX-55 | 2X | 2 | 19.7 | 11.2 | 20.0 | 82.0 |
| Burt's A239 | 2X | 3 | 20.1 | 5.8 | 20.6 | 79.3 |
| McCurdy 3 X 3 | 2X | 4 | 18.8 | 7.3 | 15.0 | 77.4 |
| McCurdy 69-109 | 2X | 5 | 19.7 | 6.4 | 13.2 | 76.0 |
| Coop S-201 | 2X | 6 | 19.6 | 8.1 | 15.8 | 74.3 |
| Northrup-King PX 50 | 2X | 7 | 19.3 | 9.9 | 19.9 | 71.7 |
| Curry SC-142 | 2X | 8 | 20.7 | 9.7 | 18.3 | 71.1 |
| Burt's A201 | 2X | 11 | 20.4 | 12.1 | 19.3 | 69.7 |
| O's Gold SX-1100 | 2X | 10 | 21.2 | 7.8 | 18.1 | 69.6 |
| McCurdy MSP 777 | 3X | 13 | 18.6 | 16.0 | 16.3 | 69.4 |
| McCurdy MSX 44 | 2X | 14 | 20.4 | 12.3 | 17.3 | 68.8 |
| Trojan TXS108 | M2X | 8 | 17.9 | 7.8 | 23.8 | 68.2 |
| Trojan TXS107 | 2X | 12 | 19.1 | 7.5 | 5.1 | 67.9 |
| SDAES Ex 70 | 3X | 15 | 18.7 | 11.8 | 11.0 | 66.9 |
| Curry SC-158 | 2X | 16 | 20.0 | 8.4 | 17.2 | 66.8 |
| Trojan TXS115 | M2X | 20 | 23.1 | 8.8 | 10.6 | 66.4 |
| McCurdy 2 X 4 | 2X | 18 | 21.1 | 7.7 | 16.0 | 66.2 |
| Pride R-540 | 3X | 17 | 19.2 | 9.7 | 21.2 | 66.1 |
| Pioneer 3390 | M2X | 27 | 21.5 | 15.3 | 4.7 | 65.5 |
| Trojan TXS102 | 2X | 10 | 20.1 | 7.6 | 19.6 | 65.2 |
| Curry TC-344 | 3X | 22 | 21.4 | 8.2 | 13.7 | 64.9 |
| Green Acres 473 | 4X | 29 | 22.8 | 9.3 | 7.9 | 64.8 |
| Sokota TS-67 | 2X | 21 | 20.4 | 8.1 | 18.6 | 64.6 |
| Curry SC-160 | 2X | 31 | 23.4 | 6.0 | 10.3 | 64.3 |
| Coop S-205 | 2X | 35 | 22.8 | 9.9 | 8.1 | 64.3 |
| Pioneer 3715 | 2X | 23 | 18.9 | 10.9 | 22.2 | 63.9 |
| Lincoln Mellowdent HQ16 | 2X | 30 | 20.9 | 9.7 | 20.8 | 63.8 |
| Maygold 2095 | 3X | 28 | 19.1 | 13.7 | 14.4 | 63.7 |
| Northrup-King PX 610 | 3X | 24 | 20.1 | 7.9 | 12.3 | 63.5 |
| SDAES PP119 | 4X | 26 | 19.9 | 9.4 | 11.6 | 63.4 |
| Lincoln Mellowdent HQ16 | 2X | 36 | 21.8 | 7.7 | 10.5 | 63.2 |
| Wilson's WXS-1118 | 2X | 25 | 19.4 | 9.2 | 14.6 | 63.2 |
| Pride R-450 | 2X | 33 | 19.1 | 11.4 | 19.0 | 63.0 |
| Sokota MS-84 | M2X | 39 | 21.4 | 10.9 | 12.7 | 62.5 |
| Wilson's WXS-1016 | 2X | 37 | 19.9 | 10.5 | 17.9 | 62.3 |
| Renk RK-44 | 2X | 32 | 20.5 | 3.9 | 11.3 | 62.3 |
| Pioneer 3571 | M2X | 38 | 21.3 | 6.5 | 11.6 | 62.2 |
| McCurdy MSX 66 | 2X | 46 | 23.9 | 11.8 | 7.6 | 62.2 |
| Northrup-King PX 545 | 3X | 41 | 19.4 | 13.7 | 17.5 | 61.6 |
| Coop T-207 | 3X | 40 | 21.3 | 7.3 | 13.5 | 61.4 |
| SDAES Ex 77 | 4X | 44 | 18.7 | 18.7 | 8.5 | 61.2 |
| Pioneer 3505 | M2X | 45 | 21.3 | 13.2 | 9.8 | 61.1 |
| SDAES PP 105 | 4X | 43 | 18.7 | 14.5 | 13.1 | 60.5 |
| Trojan TXS 95 | M2X | 33 | 17.4 | 4.6 | 7.8 | 60.4 |
| Pride R-728 | 3X | 42 | 19.7 | 8.9 | 12.1 | 60.3 |
| Lincoln Mellowdent HQ14A | 2X | 47 | 21.1 | 7.1 | 11.8 | 59.5 |
| McCurdy HP4 | 3X | 48 | 20.5 | 10.8 | 15.4 | 59.3 |
| Pioneer 3369 A | 3X | 51 | 23.9 | 17.3 | 10.2 | 58.9 |
| Sokota 69-1 | 2X | 49 | 20.4 | 10.3 | 7.5 | 58.7 |

TABLE 19. Continued

| Brand and Variety | Cross | Performance Rating | Percent Moisture | Percent Stalks Broken | Percent Ears Dropped | Yield, B/A |
|---|---|---|---|---|---|---|
| O's Gold SX-5500 | 2X | 52 | 26.1 | 7.8 | 7.4 | 58.0 |
| McCurdy MSP 333 | 3X | 50 | 20.0 | 8.2 | 16.1 | 56.6 |
| Trojan TXS99 | 3X | 54 | 18.1 | 17.1 | 16.7 | 55.4 |
| O's Gold SX-21 | 2X | 53 | 19.8 | 12.4 | 8.3 | 55.4 |
| Curry TC-356 | 3X | 55 | 20.9 | 8.9 | 9.6 | 54.7 |
| SDAES PP 104 | 4X | 57 | 19.0 | 26.6 | 10.5 | 54.2 |
| Pioneer 3431 | 4X | 56 | 21.5 | 7.1 | 10.0 | 53.9 |
| SDAES PP 115 | 4X | 59 | 19.8 | 22.6 | 8.8 | 53.6 |
| SDAES PP 116 | 4X | 61 | 18.5 | 26.5 | 11.8 | 52.6 |
| Curry C-560 | 4X | 63 | 20.4 | 16.4 | 8.9 | 51.2 |
| Maygold F25 | 2X | 60 | 22.0 | 8.3 | 13.4 | 51.2 |
| Lincoln Mellowdent HQ35B | 3X | 58 | 20.7 | 6.3 | 8.2 | 50.7 |
| Maygold 2068 | 3X | 62 | 21.9 | 8.0 | 10.5 | 50.6 |
| Pioneer 3291 | 4X | 65 | 22.8 | 14.8 | 11.0 | 50.3 |
| McCurdy MSP 999 | 3X | 64 | 23.7 | 8.1 | 12.9 | 49.8 |
| Maygold 988 | 4X | 66 | 20.2 | 8.8 | 12.6 | 47.4 |
| Barzen BXL-115-SP | 2X | 67 | 21.5 | 12.6 | 14.4 | 47.4 |
| Pride R-750 | 3X | 68 | 20.9 | 14.3 | 6.3 | 46.4 |
| Burt's 649A | 3X | 69 | 19.3 | 12.4 | 13.9 | 41.0 |
| SDAES PP 131 | 4X | 70 | 21.4 | 19.2 | 6.8 | 37.1 |
| SDAES SD 604 | 4X | 71 | 20.7 | 18.0 | 9.7 | 33.2 |
| | | Means | 20.5 | 10.8 | 13.0 | 61.2 |

C.V. - 21.2%

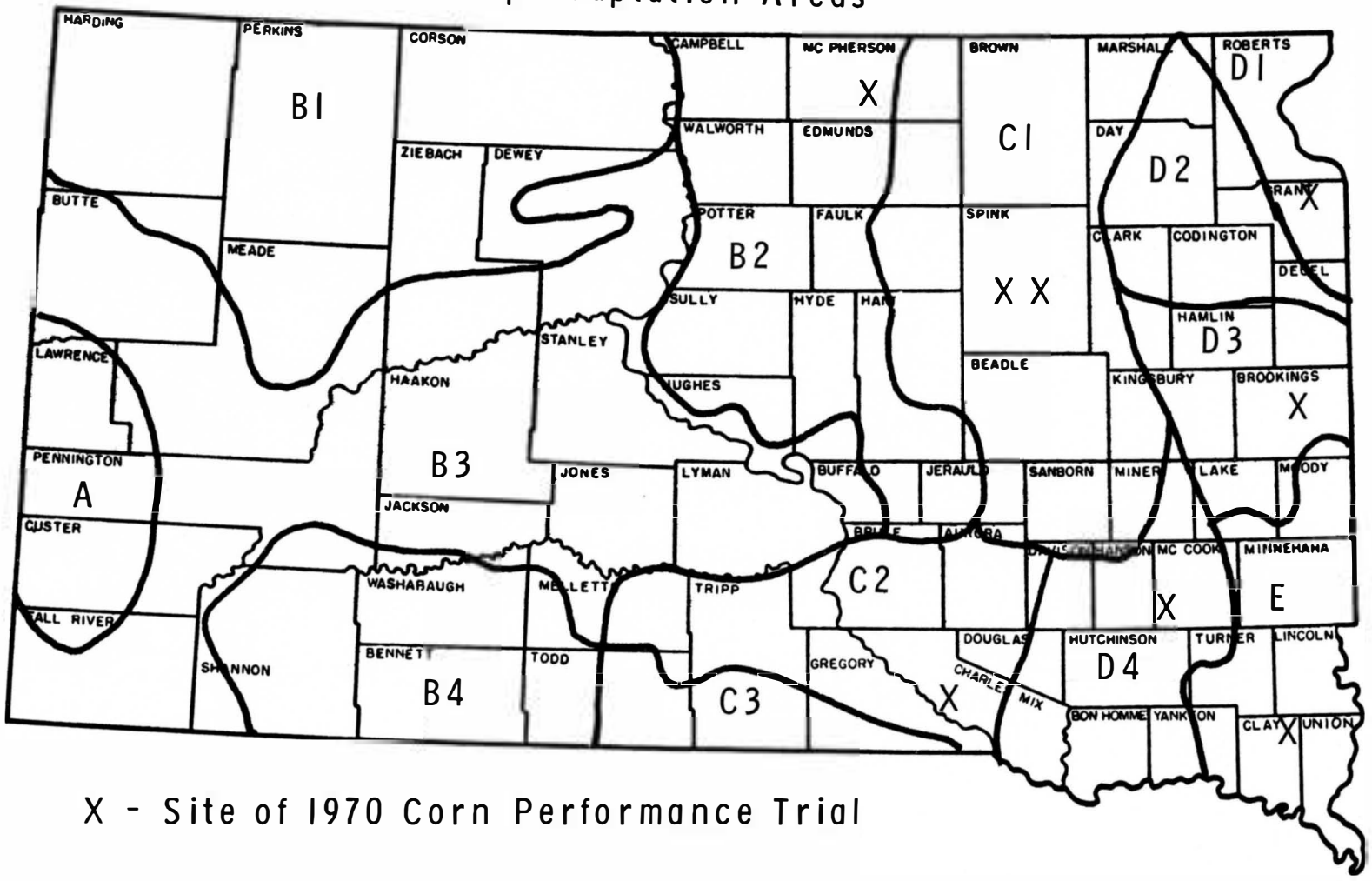
TABLE 20. TWO-, THREE-, FOUR-, AND FIVE-YEAR YIELD AND MOISTURE PERCENTAGE AVERAGES OF HYBRIDS ENTERED IN THE AREA E TRIAL, 1966-1970

| | Percent Moisture | | | | Yield, Bushels per Acre | | | |
|---|---|---|---|---|---|---|---|---|
| Brand and Variety | 1966-70 | 1967-70 | 1968-70 | 1969-70 | 1966-70 | 1967-70 | 1968-70 | 1969-70 |
| Coop S-201 | | | | 21.7 | | | | 105.7 |
| Coop S-205 | | | | 25.4 | | | | 94.2 |
| Coop T-207 | | | | 23.3 | | | | 99.2 |
| Curry's SC-142 | | | 24.4 | 22.6 | | | 120.5 | 115.0 |
| Lincoln M'dent HQ 18 | | | | 20.3 | | | | 109.1 |
| McCurdy HP4 | | | 24.3 | 23.6 | | | 115.5 | 104.2 |
| McCurdy 2 X 4 | | | 24.6 | 22.8 | | | 116.3 | 103.6 |
| Northrup-King PX 50 | | 22.1 | 22.8 | 22.1 | | 125.2 | 123.2 | 112.9 |
| Northrup-King PX 545 | | | | 21.6 | | | | 102.8 |
| Northrup-King PX 610 | | 23.5 | 24.0 | 23.1 | | 116.5 | 111.7 | 99.3 |
| Pioneer 3291 | 26.6 | 26.6 | 27.3 | 26.0 | 116.9 | 116.0 | 111.8 | 103.1 |
| Pioneer 3387 | | | | 28.0 | | | | 112.5 |
| Pioneer 3390 | | | 27.0 | 24.8 | | | 119.8 | 112.8 |
| Pioneer 3505 | | | 26.1 | 24.7 | | | 123.0 | 115.1 |
| Pioneer 3571 | | | | 23.8 | | | | 109.1 |
| Pioneer 3715 | 21.3 | 21.5 | 22.4 | 20.7 | 117.9 | 114.1 | 107.6 | 99.4 |
| SDAES SD 604 | | | 25.4 | 23.6 | | | 89.6 | 77.6 |
| Wilson's WXS-1016 | | | | 22.2 | | | | 105.6 |
| Wilson's WXS-1118 | | | | 21.6 | | | | 105.1 |

TABLE 21. 1970 HYBRID CORN ENTRIES AND TABLES WHERE THE RESULTS APPEAR

| Company & Brand | Variety | Tables |
|---|---|---|
| Barzen of Minneapolis, "Barzan" | BXL-95-3 | 15 |
| | BXL-100-3 | 16,18 |
| | BXL-105-3 | 8 |
| | BXL-110-3 | 11 |
| | BXL-115 SP | 19 |
| | BXL-95 SP | 15 |
| | BXL-110 SC | 16 |
| Clay Co. Seeds "Burt's" | A 201 | 19 |
| | A 239 | 19 |
| | 649A | 12, 19 |
| Curry Seed Co. "Curry's" | SC-160 | 19 |
| | SC-142 | 8,10,11,12,13,15,16,17,18,19,20 |
| | SC-158 | 19,20 |
| | SC-141 | 10,17,18 |
| | TC-344 | 11,12,19 |
| | TC-356 | 19 |
| | C-560 | 19 |
| Farmland Industries "Coop" | S-102 | 7,15 |
| | S-201 | 6,8,10,11,15,16,19,20 |
| | S-205 | 11,16,19,20 |
| | T-106 | 6,7,15 |
| | T-207 | 8,11,12,16,19,20 |
| | D-110 | 7,17 |
| Green Acres | 447 | 11,12,13,14 |
| | L 17 | 11,12,13,14 |
| | 473 | 11,12,19 |
| King Distributing Co. "Western" | KX-33 | 6,7,8,10,15,16,17,18 |
| | KX-45 | 6,8,12,15,16 |
| | KX-55 | 8,11,12,16,18,19 |
| | K-1002 | 7 |
| | K-1175 | 15,17 |
| Lincoln Feed & Seed Co. "Mellowdent" | HQ-16 | 19 |
| | HQ-18 | 19,20 |
| | HQ-14A | 19 |
| | HQ-35B | 19 |
| Earl May Co. "Maygold" | 2095 | 8,11,19 |
| | F 25 | 11,19 |
| | 988 | 11,19 |
| | 2068 | 19 |
| Northrup-King & Co. "NK" | PX 20 | 6,8,16 |
| | PX 50 | 8,10,11,12,14,19,20 |
| | PX 417 | 7,9 |
| | PX 419 | 7 |
| | PX 428 | 7 |
| | PX 442 | 6,7,9,15,16,17 |
| | PX 446 | 6,15,17 |
| | PX 476 | 6,15,16,17,18 |
| | PX 521 | 6,8 |
| | PX 525 | 6,8,10,16,18 |
| | PX 545 | 8,10,12,14,19,20 |
| | PX 610 | 11,12,13,14,19,20 |
| W. O. McCurdy & Sons "McCurdy" | 2 X 4 | 8,10,11,13,16,18,19,20 |
| | 3 X 3 | 19 |
| | 3 X 4 | 8,10,11,13 |
| | HP 4 | 19,20 |
| | MSX 22 | 8,16 |
| | MSX 44 | 8,11,19 |
| | MSX 66 | 19 |
| | 69-109 | 11,19 |
| | MSP 111 | 16 |
| | MSP 333 | 16,19 |
| | MSP 555 | 11 |
| | MSP 777 | 19 |
| | MSP 999 | 19 |
| Pioneer Hi-Bred Corn Co. "Pioneer" | 3291 | 19,20 |
| | 3369A | 19 |
| | 3387 | 11,13,19,20 |
| | 3390 | 11,12,13,14,19,20 |
| | 3431 | 11,12,19 |
| | 3505 | 11,12,13,14,19,20 |
| | 3570 | 10,12,19,20 |
| | 3571 | 11,12,13,19,20 |
| | 3579 | 6,8,10,11,12,13,14 |
| | 3715 | 6,8,12,19 |
| | 3773 | 6,8,10,11,12,14,15,16 |
| | 3784 | 6,8,15,16 |
| | 388 | 7,9 |
| | 3862 | 7,9 |
| | 3872 | 7,9 |
| | 3935 | 15,16,17,18 |
| | 3956 | 6,7,8,9,10,15,16,17,18 |
| | 3959 | 7,9 |
| | 3980 | 7,8,15,16 |
| O's Gold Seed Co. "O's Gold" | SX-21 | 11,12,19 |
| | SX-900 | 11,16 |
| | SX-1000 | 11,16 |
| | SX-1100 | 8,11,12,15,16,19 |
| | SX-5500 | 12,19 |
| Pride Seed Co. "Pride" | R-200A | 15,16 |
| | R-290 | 8,15,16 |
| | R-369 | 8,15,16 |
| | R-450 | 11,12,19 |
| | R-539 | 11 |
| | R-540 | 19 |
| | R-728 | 11,12,19 |
| | R-750 | 19 |
| | 568 | 12 |
| W. F. Renk & Sons "Renk" | RK-44 | 6,8,11,19 |
| Sokota Hybrid Producers "Sokota" | 219 | 7 |
| | TS-24 | 7 |
| | TS-67 | 6,19 |
| | TS-55 | 6,8 |
| | MS-59 | 6,8 |
| | MS-84 | 19 |
| | X69-1 | 19 |
| Trojan Seed Co. "Trojan" | TXS 85 | 11 |
| | TXS 93 | 11 |
| | TXS 95 | 11,19 |
| | TXS 99 | 11,19 |
| | TXS 102 | 11,19 |
| | TXS 107 | 19 |
| | TXS 108 | 11,19 |
| | TXS 115 | 19 |
| Wilson Hybrids "Wilson's" | WXS 1016 | 11,12,13,19,20 |
| | WXS 1118 | 11,12,13,19,20 |
| South Dakota Agricultural Experiment Station "SDAES" | SD 220 | 7,9 |
| | SD 230 | 7,9,15,17 |
| | SD 240 | 7,8,9,10,15,16,17,18 |
| | SD 250 | 6,8,10,15,16,17,18 |
| | SD 270 | 6,8,12,14,16,18 |
| | SD 420 | 6,11,13 |
| | SD 604 | 11,13,19,20 |
| | SD Ex 48 | 6,7,9 |
| | SD Ex 52 | 6,8,10,15,16,17,18 |
| | SD Ex 59 | 6,7,9,15,17 |
| | SD Ex 63 | 6,8,10,11,13,16,18 |
| | SD Ex 70 | 6,8,10,13,15,16,17,18,19,20 |
| | SD Ex 72 | 6,7,9 |
| | SD Ex 75 | 6,8,10,11,13,15,17 |
| | SD Ex 76 | 11 |
| | SD Ex 77 | 6,8,11,15,16,19 |
| | SD PP103 | 6 |
| | SD PP104 | 8,10,16,19,20 |
| | SD PP105 | 8,10,19,20 |
| | SD PP112 | 6,7 |
| | SD PP113 | 11 |
| | SD PP114 | 12 |
| | SD PP115 | 19 |
| | SD PP116 | 19 |
| | SD PP117 | 8,16 |
| | SD PP118 | 15 |
| | SD PP119 | 19 |
| | SD PP120 | 8,12 |
| | SD PP122 | 16 |
| | SD PP124 | 12 |
| | SD PP125 | 8 |
| | SD PP126 | 7,15 |
| | SD PP127 | 6,7,15 |
| | SD PP128 | 6,12 |
| | SD PP129 | 6,7 |
| | SD PP130 | 7 |
| | SD PP131 | 19 |
| | SD PP132 | 7 |
| | SD PP133 | 15 |
| | SD PP134 | 12 |
| | SD PP135 | 12 |
| | SD PP137 | 8,16 |
| | SD PP138 | 8,16 |

## Crop Adaptation Areas




X - Site of 1970 Corn Performance Trial