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D. E. Kratachvil
South Dakota State University

D. B. Shank
South Dakota State University

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AGRONOMY DEPARTMENT
AGRICULTURAL EXPERIMENT STATION
SOUTH DAKOTA STATE COLLEGE
BROOKINGS

What Is Its Maturity Rating?

The number of days for a variety of corn to mature is often given by those handling hybrid corn seed. A single hybrid can vary from 85 to 105 days depending on where it is grown. A variety maturing in 85 to 90 days in Minnehaha County may require 95 days if grown further north. Consequently, this rating should be determined in the area, or areas, where it is being recommended.

Days required to reach maturity determined in areas where the seed is produced are often not valid in large areas where seed is sold. Therefore, rather than trying to rate a variety on length of maturity, this publication lists percent of moisture at harvest time. When a variety is recorded as having a sufficiently low moisture percent over several years' trials to warrant safe keeping in the crib, it is believed this information bears a better index of the suitability of a hybrid to the area than saying it has a maturity of "so many" days.

South Dakota Corn Performance Tests, 1953

By D. E. KRATOCHVIL and D. B. SHANK[1]

Corn yield trials were conducted in 1953 by the Agronomy Department of the South Dakota Agricultural Experiment Station to supply farmers with up-to-date information on popular hybrids which are being grown extensively in the various agricultural areas of the state. These trials were not contests or demonstrations, but were the basis for unbiased analysis of replicated plots. Methods used in selection of entries, planting, harvesting and analyzing will be presented under separate headings.

The information obtained from the 1953 yield trials reflects relative performing ability of the various hybrids in a season which had above-average precipitation and nearly normal temperatures in most areas of the state. May temperatures were below normal, resulting in slow growth during germination and the early seedling stages in many areas. However, killing frost did not come until most of the corn in the state had reached maturity, resulting in a high quality crop. The corn trials were harvested during the month of October; at that time, most varieties were low enough in moisture content to be normally cribbed. Results of these trials are presented in the tables which follow.

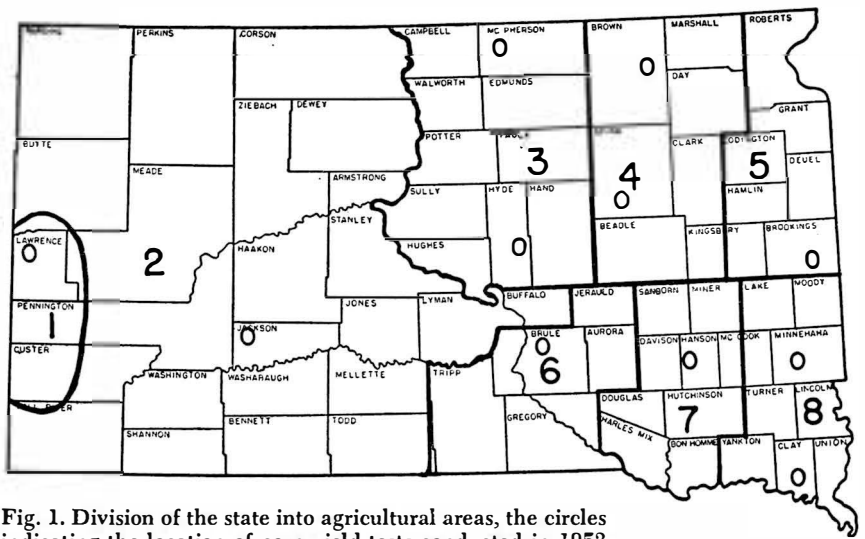

Fig. 1. Division of the state into agricultural areas, the circles indicating the location of corn yield tests conducted in 1953

[1]Assistant Agronomist and Agronomist, respectively, South Dakota Agricultural Experiment Station.

Location of the 1953 Trials

Tests were conducted in the eight agricultural areas into which the state has been divided (Fig. 1). These eight areas have been established on the basis of soil types, rainfall, temperature, and elevation as they affect crop production. At least one trial was located in each area. Where it was possible, more trials have been conducted, such as three trials in Areas 1 and 4 and two trials in Areas 3 and 8. The exact location of these trials, the cooperator, soil type and dates of planting and harvesting are presented in Table 1. Anyone evaluating and selecting hybrid varieties should refer to the trials conducted nearest the area in which the hybrid is to be planted.

Table 1. Location of the 1953 Tests

District	County	Cooperator	Post Office	Soil Type	Date Planted	Date Harvested
1	Butte	Newell Irrigation and Dry Land Field Station	Newell	Orman clay	May 18 & 19	Oct. 13 & 14
1	Butte	Al Scheeler	Vale	Vale fine sandy loam		*
2	Jackson	Range Field Station†	Cottonwood	Pierre clay loam	May 26	Oct. 27
3	McPherson	North Central Station†	Eureka	Williams loam	May 27	Oct. 21
3	Hyde	Central Station†	Highmore	Williams loam	June 1	Oct. 19
4	Brown	Robert Schuller	Claremont	Very fine sandy loam	May 13	Oct. 20
4	Spink	U. S. Bureau of Reclamation	Redfield	Bearden silt loam (irrigated)	May 20	Oct. 29
4	Spink	U. S. Bureau of Reclamation	Redfield	Bearden silt loam (non-irrigated)	May 21	Oct. 29
5	Brookings	Agr. Expt. Station	Brookings	Barnes loam	May 21 & 23	Oct. 7 & 8
6	Brule	Dale Cook	Chamberlain	Reliance silty clay loam	May 25	Oct. 26
7	Hanson	Alvin Tilberg	Ethan	Barnes silt loam	May 25	Oct. 16
8	Minnehaha	Neil Jensen	Dell Rapids	Moody silt loam	May 23	Oct. 12
8	Clay	Clarence Dose	Wakonda	Waubay silty clay loam	May 19	Oct. 14 & 15

*Tests not harvested—hailed out August 4, 1953.
†Substations of the South Dakota Agricultural Experiment Station.

Temperature and Rainfall

The information presented in Table 2 on the climatic conditions at the various stations nearest to the corn trials is based on reports of the *Monthly Climatological Data,* U. S. Department of Commerce, Weather Bureau, Huron, South Dakota. Anyone wishing to know the weather conditions under which the corn test for the area in question was grown should check the information listed closest to his area.

Nearly normal temperatures ranged throughout the state during the growing season of 1953. Except for the western area of the state, rainfall was above normal, the largest increase being during June in most areas, with August having nearly normal or slightly above normal rainfall also. September and October were characterized by low rainfall and high temperatures which provided excellent drying conditions for the corn crop. As a result, large acreages of corn were harvested and cribbed by the end of

Table 2. Temperature and Precipitation Data for the 1953 Corn-Growing Season*

Station and District	Month	Temperature in Degrees F. Average	Departure From Normal	Average Departure	Month Total	Precipitation in Inches Season Total	Departure From Normal	Total Departure	Frost-Free Days†
Spearfish	May	50.8	—3.6		3.50		+0.21		
	June	65.9	+2.5		4.96		+1.17		
(1)	July	71.6	+0.5		0.30		—1.88		
	Aug.	71.7	+2.5		2.44		+0.82		
	Sept.	63.4	+3.1	+1.0	0.45	11.65	—1.17	—0.85	‡
Newell	May	50.9	—4.5		2.98		+0.33		
	June	65.7	+1.2		4.17		+0.93		
(1)	July	71.8	—1.3		1.44		—0.78		
	Aug.	70.7	+0.1		2.08		+0.64		
	Sept.	61.5	+1.5	—0.6	0.35	11.02	—0.87	+0.25	123
Cottonwood	May	54.5	—2.1		1.24		—1.41		
	June	68.5	+1.3		2.68		+0.02		
(2)	July	73.9	—1.1		1.50		—0.50		
	Aug.	73.9	+1.4		1.45		—0.15		
	Sept.	62.5	+0.3	—0.04	0.07	6.94	—0.94	—2.98	131
Eureka	May	52.9	—2.4		4.86		+2.56		
	June	64.4	—0.5		6.67		+3.31		
(3)	July	69.2	—2.8		2.22		—0.06		
	Aug.	71.2	+1.8		1.65		—0.52		
	Sept.	59.3	—0.3	—0.8	1.37	16.77	—0.10	+5.19	124
Highmore	May	55.0	—1.5		2.57		—0.03		
	June	68.0	+2.4		4.58		+1.27		
(3)	July	72.1	—1.6		1.69		—0.66		
	Aug.	72.5§	—0.8		6.67		+4.61		
	Sept.	62.8	+0.4	‡	0.09	15.60	—1.30	+3.89	129
Aberdeen	May	54.2	—3.1		2.89		—0.18		
	June	66.2	—0.3		8.41		+4.31		
(4)	July	69.8	—3.0		1.26		—1.70		
	Aug.	71.7	+1.4		4.21		+1.40		
	Sept.	59.6	—0.9	—1.2	0.40	17.17	—1.51	+2.32	129
Redfield	May	55.5	—2.0		2.38		—0.24		
	June	68.5	+1.3		5.80		+2.53		
(4)	July	71.8	—1.7		5.59		+3.23		
	Aug.	72.8	+1.4		1.81		—0.72		
	Sept.	62.5	+1.1	+0.02	0.34	15.92	—1.34	+3.46	
Brookings	May	55.9	—0.9		3.58		+0.67		
	June	67.9	+1.8		6.40		+2.55		
(5)	July	70.4	—1.5		3.24		+0.81		
	Aug.	70.7	+0.8		3.85		+1.17		
	Sept.	59.7	—1.2	—0.2	0.28	17.35	—1.74	+3.46	131
Pukwana	May	57.2§	—0.4		2.03		—0.33		
	June	69.9§	+0.4		4.24		+0.93		
(6)	July	73.4	—4.1		1.03		—0.73		
	Aug.	74.3	—0.7		1.78		—0.24		
	Sept.	64.0§	—0.9	‡	0.20	9.28	—1.20	—1.57	139
Mitchell	May	58.3	—0.7		2.24		—0.60		
	June	71.7	+3.4		6.60		+2.57		
(7)	July	74.3	—0.2		1.99		—1.07		
	Aug.	74.8	+2.8		6.07		+3.47		
	Sept.	65.5	+2.3	+1.5	0.34	17.24	—1.78	+2.59	‡
Sioux Falls	May	57.0	—1.1		2.71		—0.67		
	June	70.9	+2.9		5.35		+1.10		
(8)	July	73.1	—1.7		2.31		—0.69		
	Aug.	73.2	+0.8		4.26		+0.98		
	Sept.	61.6	—0.8	+0.02	2.51	17.14	—0.42	+0.30	‡
Vermillion	May	60.6	—0.6		3.65		+0.09		
	June	75.0	+4.7		4.83		+0.78		
(8)	July	76.8	+0.4		1.87		+2.80		
	Aug.	75.0	+1.1		7.50		+4.52		
	Sept.	66.0	+0.7	+1.3	1.36	19.21	—1.80	+6.39	‡

*Information presented was taken from *Monthly Climatological Data*, U. S. Department of Commerce, Weather Bureau, Huron, South Dakota.

†Number of days between 32°, or below, in the spring and 32°, or below in the fall.

‡No figures available.

§One or more days of record missing.

October. A brief report, month by month, is given below:

May: Temperatures over the state were slightly below normal; there was little departure from normal precipitation. Corn was planted on time but was slow in germination and early seedling development.

June: June precipitation and temperatures were above normal throughout the state. Eureka and Aberdeen received 3.31 and 4.31 inches of rainfall above normal, respectively. There was no area in the state reporting below-normal rainfall. These conditions were ideal for growth of corn.

July: Temperatures during this month averaged below normal in most areas. Except for Redfield, Brookings, and Vermillion, precipitation was below normal also. However, there did not appear to be serious damage to the corn crop as reserve moisture was sufficient in most areas.

August: All areas reported near-normal or above-normal moisture and temperatures for August. The corn crop developed rapidly under these conditions bringing about excellent prospects for a good crop. In some areas a deficiency of nitrogen became apparent which undoubtedly reduced the ultimate yields on such fields.

September: September temperatures were near normal to above normal in most areas. All areas reported below-normal precipitation. This lack of moisture did not develop into drought conditions for corn in most areas as reserve moisture was sufficient; however, it did seem to hasten maturity. By late September most corn was mature and ready for frost. The drought conditions that prevailed through October provided excellent corn drying conditions and resulted in a fair to excellent quality crop going into the crib throughout the state. Harvesting progressed rapidly from mid-October on and was nearly completed by mid-November.

Selection of Entries

To select entries for the tests, a survey was conducted to ascertain those hybrids which were purchased most by farmers in the agricultural area represented by each test. Information was obtained on the hybrids of those companies which registered their corns with the South Dakota State Department of Agriculture. The survey included recommendations by representatives of the corn companies producing and registering the hybrids, and lists submitted by county agents located in the areas where the tests were conducted. Facilities permitted testing only the most widely used hybrids.

Method of Planting and Harvesting

Planting. Each group of entries was planted in four or five replications. Within these replications, plots of individual hybrids were located at random. Each plot consisted of two rows, 10 hills long, or the equivalent if the corn was drilled rather than checked. Planting was done at the rate of three kernels per hill for the checked plots, one per hill for the drilled plots (except under irrigation where planting rate was increased). Tests located with farmer-cooperators received the same fertilizer applications and cul-

tural treatments as did the farmer's own corn. Planting dates are given in Table 1.

Harvesting. The test plots were picked at the time general harvesting was going on in the surrounding area. The corn from each plot was picked separately and weighed. After weighing, samples for moisture determination were taken on three replications of the plots. This was accomplished by selecting 12 ears at random, taking a 1-inch cross section from the middle of each ear by means of a machine built for this purpose, and placing the 12 cross sections in a paper bag. The samples were weighed when taken in the field, then they were oven-dried at 102 degrees C. in the laboratory, reweighed and the moisture percentages determined. Harvesting dates are given in Table 1.

Measuring Performance

Yield. The yield reported for each hybrid or variety in each test is the average obtained for all replications, expressed in bushels per acre on the basis of 15.5 percent moisture. All yields were computed from the field weights which had been corrected according to the moisture content of the individual entries. At the bottom of each table of results (Tables 3-15, inclusive) is given the minimum amount for the 1953 tests by which two entries must differ in yield in order for that difference to be considered statistically significant.

A slight amount of variation can occur between entries of equal performance potential due to field conditions, such as variations in soil and slope, and stand differences. Therefore, mathematical determinations have been made to establish how great a difference between two entries is necessary before it can be said that it is a true difference rather than a chance variation. For example, in Brookings County (Table 11), a difference of 6.04 bushels per acre in the yield of two entries is required before it can be said that one has a superior yielding ability over the other. This difference, required for significance, varies from test to test, depending upon amount of chance variation within each.

The average yield of all entries appears at the bottom of the yield column in each table.

Moisture content. The moisture content at harvest is given for each entry in the tables. This is the amount of moisture in the ear corn expressed in percentage. At the bottom of the moisture percentage column appears the average moisture percent of all entries. *Moisture content is directly related to maturity, and because maturity is of primary consideration in South Dakota, these figures are very important when an evaluation of the various entries is made.*

Performance score. Each entry in the various tables is ranked on the basis of a performance score. This score was computed for each entry from its 1953 performance record, expressed as a percentage of the average of all entries. In such calculations, yield was weighted 60 percent and dry matter (100 minus percent moisture) 40 percent.

Stand. A reduction in the number of hills below 100 percent is taken to mean that either the seed of an entry is unable to produce a good stand under the environmental conditions prevailing for the test, or that something destroyed either the kernels before germination or the young plants. Thin stands reduce yields and since this work is designed primarily to test yielding potential of the various entries, rather than germination, corrections in yield were made for missing hills according to the formula:

$$CW = FW\left(\frac{H-0.3M}{H-M}\right)$$

where CW = corrected weight, FW = field weight, H = number of hills per plot and M = number of missing hills. No yield corrections were made for minor variations in stand, that is, less than three stalks per hill. Also no corrections were attempted for poor stands in drilled plots.

Lodging. In the Brookings County test, root lodging figures for 1953 and a 2-year average are presented. They are expressed as the percentage of stalks which lodged 30 degrees or more from the perpendicular at the time of harvest.

Results over a period of years. Many of the entries included in the 1953 trials were also tested in previous years. This makes possible the calculation of 2-, 3-, 4-, and 5-year averages in some cases, and such data are included in many of the tables which follow. These averages are more useful for determining the value of any hybrid or variety than the results obtained in a single year, for in any one year an entry may fluctuate in its relative value because of specific environmental conditions under which the test was conducted. Averages for a period of several years will iron out these environmental variations. A hybrid or variety was included in the averages only when it was the same variety each year and was secured from the same source.

Black Hills Area

Butte County.[2] Three tests were conducted in Butte County. Two tests on clay soil, one irrigated and one on dry land, were at the Newell Irrigation and Dry Land Field Station. The other test under irrigation was located on sandier soil on the Al Scheeler farm just northwest of Vale.

The trial area at the Field Station received about 35 to 40 pounds of available nitrogen fertilizer from 33-0-0 and a similar amount of available phosphate as 0-43-0 by broadcast application just prior to harrowing before planting. The corn at the Field Station was planted May 18 and 19 and harvested October 13 and 14. The trials on the Scheeler farm were destroyed by hail August 4; therefore, only results of two trials are presented.

[2]The work in Butte County was conducted by Joseph J. Bonnemann and Bruce L. Baird, Division of Soil Management and Irrigation Agriculture, BPISAE, USDA, Newell Irrigation and Dry Land Field Station, Newell, South Dakota in cooperation with the South Dakota Agricultural Experiment Station.

Table 3. Area 1 (Butte County) 1953 Corn Performance Tests on Irrigated Land—Clay Soil

Hybrid or Variety	1953 Performance Score	Acre Yield Bu.*	Moisture Percent	2-Year Average* Yield Bu.	2-Year Average* Moisture Percent	3-Year Average Yield Bu.	3-Year Average Moisture Percent
S. Dak. 250 (Exptl. 9)	122.75	101.6	13.8				
Funk G-18	117.45	95.5	14.5	76.2	20.8		
Sokota 224	114.81	91.7	13.5	73.4	19.2	69.3	26.4
Sokota 270	113.26	89.8	13.5				
Wisconsin 270	110.09	85.3	12.4				
DeKalb 56	108.79	84.1	13.1	71.9	17.0	71.8	22.4
Black Hills Special†	105.96	82.5	16.4				
Sokota 262	102.76	77.1	13.8	66.2	20.9	62.0	28.3
Disco 95W	102.83	76.9	13.3				
Funk G-11	103.15	76.8	12.4	68.0	17.7		
DeKalb 46	102.62	76.6	13.2	65.6	15.9	64.8	21.3
Sokota 220	102.10	75.9	13.1	68.4	16.5	71.7	20.7
Jacques 853J	101.27	75.0	13.3	63.1	17.5		
Wisconsin 355	98.03	71.2	13.6	63.4	19.1	62.5	24.1
Pioneer 382	96.77	69.1	12.6				
Wisconsin 341A	95.07	67.8	14.0	67.7	18.3		
United U-20-A	93.16	64.9	13.0	64.5	17.3		
Wisconsin 1614	92.12	64.3	14.2	61.9	21.3		
White Dent†	88.49	59.8	14.1				
Wisconsin 1616	87.85	58.5	13.2	54.5	14.6		
Kingscrost KE3	86.63	56.5	12.3	59.6	12.7	58.1	16.8
Wisconsin 255	83.87	52.4	11.0	52.1	13.2	58.8	16.5
Wisconsin 240	69.73	36.3	13.2	45.5	15.5	49.6	18.7
Average of all entries		**73.5**	**13.4**	**63.9**	**17.3**	**63.17**	**21.7**

*Differences of less than 12.3 bushels per acre are not statistically significant.
†Open pollinated corn.

Table 4. Area 1 (Butte County) 1953 Corn Performance Tests on Dry Land[3]

Hybrid or Variety	1953 Performance Score	Acre Yield Bu.*	Moisture Percent
Sokota 220	108.12	52.9	10.2
S. Dak. 250 (Exptl. 9)	107.88	53.6	12.6
Jacques 853J	103.58	50.4	13.2
Kingscrost KE3	101.78	46.9	7.4
Black Hills Special†	100.58	51.8	23.6
DeKalb 46	100.24	47.5	12.5
Disco 85W	98.92	47.4	15.1
Kingscrost KF	97.70	44.4	9.5
Wisconsin 255	96.76	44.0	10.4
Falconer†	96.64	43.9	10.4
Gehu†	94.12	42.1	10.9
White Dent†	94.00	45.2	19.8

*Differences in yield of less than 5 bushels per acre are not statistically significant.
†Open pollinated varieties.
[3]The dry land work in Butte County was conducted by A. Osenberg, agronomist, Division of Soil Management and Irrigation Agriculture, BPISAE, USDA, Newell, South Dakota, in cooperation with the South Dakota Agricultural Experiment Station.

West River Area

Jackson County. The test in this county was planted May 26 and harvested October 27. Above-normal precipitation during June, and reserve soil moisture resulted in one of the best crops of corn that has been harvested at the Range Field Stations since the corn performance tests have been carried on. All but one of the hybrids entered in the trial out-yielded the open pollinated varieties; however, not all varieties were sufficiently higher to be statistically significant.

Table 5. Area 2 (Jackson County) 1953 Corn Performance Tests

Hybrid or Variety	1953 Performance Score	Acre Yield Bu.*	Moisture Percent	2-Year Average† Yield Bu.	2-Year Average† Moisture Percent
Sokota 220	124.23	25.9	11.0	———	———
Master F32	121.04	25.0	11.6	———	———
Kingscrost KE1	112.71	22.3	10.7	———	———
S. Dak. 250 (Exptl. 9)	111.25	22.1	12.5	16.6	21.9
Sokota 224	109.52	21.4	11.3	13.4	25.9
Sokota 212	107.26	20.8	12.0	12.1	27.1
Gurney 90	106.97	20.6	11.2	———	———
DeKalb 58	102.96	19.5	12.2	———	———
Sokota 270	100.78	18.8	12.0	11.9	27.1
Sokota 262	100.64	18.7	11.6	12.5	28.4
Funk G-9	100.38	18.8	12.9	12.4	34.4
F. U. 4417	99.95	18.5	11.7	———	———
Sokota 400	99.44	18.4	12.1	12.9	30.6
Kingscrost KE3	98.92	18.1	11.1	9.9	19.2
Disco 85W	97.86	17.8	11.3	11.2	22.0
Funk G-1A	96.67	17.6	12.5	10.6	31.9
Wisconsin 355	96.48	17.4	11.5	———	———
Disco 90W	95.87	17.2	11.4	———	———
DeKalb 62	95.68	17.1	11.1	———	———
Jacques 803	92.13	16.0	11.1	———	———
Rainbow Flint	91.16	15.8	11.8	10.8	23.7
Gurney 85	85.89	14.2	12.0	———	———
Gehu	52.33	4.1	13.9	———	———
Average of all entries	———	**18.5**	**11.8**	**12.2**	**26.6**

*Differences in yield of less than 6.9 bushels per acre are not statistically significant.
†Two-year averages are of the 1951 and 1953 crops. Drought eliminated the 1952 trials.

North Central Area

McPherson County. The trials were again conducted at the North Central Station at Eureka. They were planted May 27 and harvested October 21. The Eureka area received above-normal precipitation in May and June, with near normal for the rest of the season. The lowest yielding varieties produced more corn in 1953 than the highest yielding did in 1952. Most varieties were low in moisture content, having had sufficient length of season to mature.

Table 6. Area 3 (McPherson County) 1953 Corn Performance Tests

Hybrid or Variety	1953 Performance Score	Acre Yield Bu.*	Moisture Percent	2-Year Average		3-Year Average		4-Year Average		5-Year Average	
				Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent
Pioneer 388	108.1	52.2	16.5	37.4	17.5	34.7	34.3				
Kingscrost KE3	107.8	50.9	13.7								
Jacques 853J	105.2	49.7	15.9								
Sokota 220	105.0	49.5	15.7	39.3	15.7	35.8	31.6	35.4	33.9		
DeKalb 46	103.9	48.4	15.1	34.8	15.9	33.6	32.8	34.2	35.0		
Wisconsin 240	102.6	47.7	15.8	36.5	16.7	36.3	25.3	37.3	27.4	36.3	26.7
Wisconsin 355	102.4	48.1	17.3	33.9	21.1	33.2	35.0	34.8	37.8		
Nodakhybrid 301	102.2	47.4	15.8								
Pride PN16	101.3	46.8	16.1	32.4	18.8	31.0	36.0				
Hansmann	101.0	47.4	18.4	36.9	17.7	34.9	30.5	37.1	32.3	36.4	30.9
Jacques 901J	100.8	46.9	17.3								
Disco 90W	100.6	47.5	19.5	33.8	22.3						
DeKalb 56	100.5	47.7	20.3	37.0	19.5	32.0	36.4	29.9	42.2		
Kingscrost KE2	100.1	45.4	13.9	35.7	13.9	33.8	27.8	33.9	30.7		
Master F21	99.8	45.5	15.7	34.2	16.4						
Sokota 212	97.8	45.2	18.9	35.1	19.0	33.2	34.8	33.1	39.1	31.3	38.3
Funk G-188	95.2	41.3	14.0	28.8	17.5	27.8	35.1	28.1	37.7	27.1	36.2
Sokota 204	94.9	42.7	18.3	33.4	19.1	30.0	35.9	29.5	40.1	29.0	40.1
Nodakhybrid 304	93.7	41.6	16.8	35.6	17.6	34.5	30.1	35.9	31.2	35.3	30.4
Silver King	77.6	30.8	22.0	27.2	23.2	25.3	38.9	25.3	42.6	25.8	40.9
Average of all entries		**46.1**	**16.9**	**34.7**	**18.2**	**32.8**	**33.0**	**33.2**	**35.5**	**32.2**	**34.2**

*Differences in yield of less than 9.2 bushels per acre are not statistically significant.

North Central Area

Hyde County. Yields at the Central Station at Highmore were excellent in 1953 as this area received an abundance of moisture throughout the growing season until September. Reserve moisture carried the corn crop through this month until it had matured. The test was planted June 1 with harvesting being completed October 19.

Table 7. Area 3 (Hyde County) 1953 Corn Performance Tests

Hybrid or Variety	1953 Performance Score	Acre Yield Bu.*	Moisture Percent	2-Year Average		3-Year Average		4-Year Average		5-Year Average	
				Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent
Sokota 270	118.14	68.9	13.1	47.0	11.9	44.2	20.0	39.7	22.0		
S. Dak. 250 (Exp. 9)	107.67	65.1	11.7								
Sokota 400	106.45	65.0	14.1	44.4	13.7	39.4	25.4	35.2	27.2	32.7	26.7
Pioneer 377A	105.86	64.2	13.6	43.5	15.3	40.8	25.1	37.3	25.4		
Sokota 224	105.66	63.1	11.6	43.5	11.3	41.0	20.4	36.9	21.6	34.5	21.1
Kingscrost KS4	105.24	63.1	12.5	43.9	12.4	42.0	21.2				
Sokota 262	105.03	63.3	13.4	43.7	13.6	37.3	24.1	34.1	25.6		
Sokota 220	104.75	62.4	12.0	45.4	11.2	43.1	16.6	40.0	17.0		
Funk G-18	102.83	60.8	12.6	40.4	12.8						
Tomahawk 4	102.64	61.2	13.9	42.8	14.5	39.5	23.9				
Trojan C54	102.63	60.7	12.8								
Rainbow Flint	100.98	59.9	14.6	40.6	13.8	41.4	20.7	36.9	21.6		
Sokota 212	100.10	58.1	12.5	38.3	13.1	36.6	19.8	33.4	20.7	33.0	20.3
Pioneer 388	99.05	56.1	10.3	34.7	12.5	34.5	20.8				
Van Tassel V44	98.42	56.7	13.0								
Jacques 907	98.05	57.5	15.6								
Peavey 355	97.93	56.8	14.3	34.0	15.6						
DeKalb 58	97.62	55.6	12.3	40.2	12.3						
Gurney 95	97.39	56.1	13.9								
Disco 100W	97.32	55.8	13.4								
Pride D36	95.76	53.7	12.1	34.2	13.8						
Disco 90W	94.23	52.8	13.4	33.3	15.7	33.5	22.5				
DeKalb 65	93.70	54.3	17.9								
Cargill 90N	89.79	48.4	13.2								
Falconer	80.58	38.5	11.1	26.8	10.8	28.6	16.6	25.7	16.5		
Average of all entries		**58.3**	**13.2**	**39.8**	**13.2**	**38.6**	**21.3**	**35.5**	**22.0**	**33.4**	**22.7**

*Differences in yield of less than 5.76 bushels per acre are not statistically significant.

North James River Area

Brown County. The test in this area was moved from the Ellis Barnes farm to the Robert Schuller farm north of Claremont for the 1953 season. The soil type is a very fine sandy loam. Having sufficient moisture resulted in some of the highest yields in recent years of testing for this area. Moisture content at harvest time indicated an excellent quality crop. The trials were planted May 13 and harvested October 20. The 2- to 5-year averages for this area include the 1953 yields from the trials on the Schuller farm and the yields obtained in years past on the Barnes farm.

Table 8. Area 4 (Brown County) 1953 Corn Performance Tests

Hybrid or Variety	1953 Performance Score	Acre Yield Bu.*	Moisture Percent	2-Year Average		3-Year Average		4-Year Average		5-Year Average	
				Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent
Sokota 270	108.69	71.5	16.9	62.0	12.2	53.4	24.8				
Pioneer 382	106.29	67.5	13.7	58.0	10.5	52.4	22.0	49.1	24.5		
S. Dak. 250 (Exp. 9)	106.23	67.6	14.0								
Pioneer 388	104.63	65.8	13.7	59.4	11.0	55.9	20.5				
Disco 90W	104.32	66.4	15.6								
Kingscrost KS4	103.77	65.8	16.4	55.6	12.5	50.2	25.3				
Sokota 262	103.67	65.1	14.3	57.0	11.0	50.8	22.9				
Sokota 224	103.65	64.6	13.3	50.1	10.5	45.5	23.0	44.7	26.0	47.8	25.8
Funk G-6	103.60	66.9	18.2								
Cargill 95N	103.59	65.3	14.9	54.7	11.2						
Pfister P.A.G. 33	101.15	63.0	15.3								
Pride PN 21	101.08	62.4	14.2								
Jacques 957A	101.04	62.6	14.7								
Sokota 220	100.14	60.9	13.1	49.0	10.1	46.1	19.4				
Tomahawk 4	99.95	62.1	16.0								
Funk G-1A	99.52	60.8	14.2	53.8	11.6						
DeKalb 58	98.95	60.9	15.1	54.0	11.3						
Sokota 212	98.70	60.2	14.7	52.7	10.9	48.3	21.6	45.2	24.2	47.4	24.1
DeKalb 56	96.01	57.1	14.0	51.8	11.2	48.9	21.4	47.7	24.6	50.6	24.3
Agsco 501	95.86	56.9	14.0	47.2	11.3						
Trojan C59	95.73	57.2	14.8								
Pride B17A	95.04	56.2	14.2								
Gurney 90	94.68	56.6	15.8								
Disco 95W	92.50	53.6	14.2	47.9	11.1	46.9	22.1	43.8	26.6	47.2	25.9
Van Tassel V54	91.37	52.1	13.5								
Kingscrost KE1	90.48	50.9	12.9	44.1	9.9	41.9	18.8				
Average of all entries		**61.5**	**14.7**	**53.2**	**11.1**	**49.1**	**22.0**	**46.1**	**25.2**	**48.3**	**25.0**

*Differences in yield of less than 8.08 bushels per acre are not statistically significant.

North James River Area

Spink County. Two tests were conducted on the Redfield Development Farm in cooperation with the Bureau of Reclamation. One experiment was on non-irrigated land and the other under irrigation. The Redfield area received above-normal precipitation for the season. This combined with the fact that the irrigated trial was on an area which was levelled and prepared for irrigation only in the past season may account for the little difference between the two trials. Moisture percent of the corn at harvest time was sufficiently low for safe cribbing of all varieties. The trials were planted May 20 and 21 and harvested October 29.

Table 9. Area 4 (Spink County) 1953 Corn Performance Tests—Results on Non-irrigated Land

Hybrid or Variety	1953 Performance Score	Acre Yield Bu.*	Moisture Percent	2-Year Average† Yield Bu.	2-Year Average† Moisture Percent	3-Year Average Yield Bu.	3-Year Average Moisture Percent
S. Dak. 250 (Exptl. 9)	108.83	68.9	10.8	56.7	25.4	—	—
Sokota 400	108.35	69.2	12.5	53.0	31.8	49.5	34.3
Pioneer 377A	107.97	68.4	11.6	59.8	28.0	56.1	30.9
Kingscrost KS6	105.11	65.8	12.2	55.9	29.9	52.6	31.5
Funk G-1A	104.42	65.1	12.2	—	—	—	—
Pfister P.A.G. 33	104.41	65.0	12.0	—	—	—	—
Cargill 90N	103.43	64.1	12.2	—	—	—	—
DeKalb 58	102.24	62.4	11.1	—	—	—	—
Sokota 262	102.00	62.3	11.4	51.3	28.6	—	—
Pioneer 382	100.12	60.4	11.4	—	—	—	—
Sokota 224	98.83	59.1	11.4	51.3	28.3	48.3	29.3
Sokota 220	97.49	57.8	11.5	—	—	—	—
Sokota 270	97.15	57.5	11.6	49.8	28.8	47.6	31.5
Pride PN21	95.94	56.7	12.5	—	—	—	—
DeKalb 56	95.00	55.2	11.3	48.7	26.8	45.7	28.2
Disco 95W	92.59	53.1	12.0	—	—	—	—
Kingscrost KE3	89.30	49.1	10.5	41.2	21.6	38.8	22.6
Van Tassel V54	86.75	47.4	12.4	—	—	—	—
Average of all entries	—	**60.4**	**11.7**	**52.0**	**27.7**	**48.4**	**29.8**

*Differences in yield of less than 11.4 bushels per acre are not statistically significant.
†No results were obtained on non-irrigated land in 1952. Therefore, 2-year averages are for 1953 and 1951; 3-year averages are for 1953, 1951, and 1950.

North James River Area

Spink County. Test conducted on irrigated land.

Table 10. Area 4. (Spink County) 1953 Corn Performance Tests—Results on Irrigation

Hybrid or Variety	1953 Performance Score	Acre Yield Bu.*	Moisture Percent	2-Year Average Yield Bu.	2-Year Average Moisture Percent	3-Year Average Yield Bu.	3-Year Average Moisture Percent	4-Year Average Yield Bu.	4-Year Average Moisture Percent
Sokota 220	113.88	74.2	11.6	86.9	11.9	85.1	17.1	—	—
Funks G-1A	109.13	70.5	14.0	79.4	14.6	—	—	—	—
Sokota 400	109.12	69.8	12.5	74.3	15.2	77.9	22.5	80.1	27.1
Sokota 270	108.26	69.4	13.5	75.6	15.0	74.3	21.8	80.0	25.5
Pioneer 377A	107.12	68.1	13.2	73.6	14.6	77.6	21.4	82.0	26.0
S. Dak. 250 (Exptl. 9)	104.05	64.4	11.9	78.1	14.2	77.9	19.5	—	—
Sokota 224	103.22	63.5	12.2	77.7	15.0	78.8	21.5	79.9	24.8
Kingscrost KS6	102.15	63.4	13.9	74.0	14.7	73.5	22.0	76.1	25.7
Sokota 262	102.11	62.9	12.9	67.1	14.1	—	—	—	—
DeKalb 58	100.64	61.0	12.0	68.7	14.6	—	—	—	—
Cargill 90N	99.39	60.1	12.8	67.4	13.2	—	—	—	—
Disco 95W	96.61	57.3	12.8	65.1	14.0	—	—	—	—
Pfister P.A.G. 33	96.36	57.0	12.7	—	—	—	—	—	—
Van Tassel V54	95.75	56.1	12.1	—	—	—	—	—	—
Pioneer 382	93.54	54.2	12.8	71.4	14.5	—	—	—	—
Pride PN21	90.35	51.2	13.3	—	—	—	—	—	—
DeKalb 56	86.29	46.5	12.0	70.5	12.9	72.0	18.5	70.6	23.3
Kingscrost KE3	82.05	41.7	10.9	60.7	13.1	59.5	17.9	59.9	21.0
Average of all entries	—	**60.6**	**12.6**	**72.7**	**14.1**	**75.2**	**20.2**	**75.5**	**24.8**

*Differences in yield of less than 16.8 bushels per acre are not statistically significant.

Northeast Area

Brookings County. Yields obtained from most varieties entered in this trial were considerably higher than those in recent years. The trial was conducted on the Agronomy experimental farm located one mile east of the college campus at Brookings. Precipitation at the Brookings Station was above normal for every month of the growing season except September. Temperatures were near normal for this same period. Planting was completed May 21 and 23 and harvesting, October 7 and 8. Root lodging percent is shown for the 1953 trial on all varieties, and where the variety was in the 1952 trial, a 2-year lodging percent has been determined. (Table 11 on following page.)

Table 11. Area 5 (Brookings County) 1953 Corn Performance Tests

Hybrid or Variety	1953 Performance Score	Acre Yield Bu.*	Moisture Percent	Root Lodging Percent	2-Year Average Yield Bu.	2-Year Average Moisture Percent	2-Year Average Root Lodging Percent	3-Year Average Yield Bu.	3-Year Average Moisture Percent	4-Year Average Yield Bu.	4-Year Average Moisture Percent	5-Year Average Yield Bu.	5-Year Average Moisture Percent
Sokota 400	108.10	90.4	25.0	5.5	73.6	26.9	9.0	60.0	35.9	60.4	37.1	53.1	37.2
Kingscrost KS4	107.97	89.6	24.1	10.9	78.8	25.5	15.1	64.2	33.1	----	----	----	----
Pioneer 377A	107.53	90.0	25.5	.8	80.1	26.7	4.6	64.2	37.4	64.4	45.5	----	----
S. Dak. 250 (Exptl. 9)	107.01	85.3	19.8	1.3	80.7	22.1	3.8	66.6	30.9	67.2	31.5	60.7	30.7
Sokota 270	106.63	89.3	26.2	7.8	82.7	24.9	8.1	66.2	32.5	64.9	35.3	57.5	34.6
Disco 101A	106.17	88.2	25.5	15.3	----	----	----	----	----	----	----	----	----
Funk G-6	105.46	87.8	26.3	6.1	78.9	26.2	10.0	----	----	----	----	----	----
Sokota 262	105.45	86.4	24.3	18.2	78.3	24.1	21.8	63.1	33.4	63.5	34.5	----	----
Tomahawk 14	105.01	86.8	25.7	4.0	----	----	----	----	----	----	----	----	----
Pfister P.A.G. 44	104.55	85.0	24.0	3.9	----	----	----	----	----	----	----	----	----
Van Tassel V727	104.36	85.1	24.5	6.4	----	----	----	----	----	----	----	----	----
Pfister P.A.G. 56	104.34	85.5	25.1	3.3	72.2	26.2	8.6	57.8	36.9	59.0	37.7	50.5	38.2
Funk G-1A	103.81	83.6	23.4	2.5	74.7	25.3	10.9	61.3	34.6	61.3	35.6	54.2	34.9
DeKalb 62	101.64	83.4	27.2	4.6	74.0	26.6	10.7	----	----	----	----	----	----
Kingscrost KS6	101.59	82.9	26.6	7.7	78.2	27.1	17.7	61.3	37.3	62.3	37.3	54.1	36.7
Sokota 224	100.34	78.1	22.1	9.1	70.4	22.2	15.6	58.9	29.8	59.8	31.1	53.8	30.7
Pioneer 379A	100.05	80.1	25.5	4.6	69.9	26.0	11.3	56.4	36.0	58.6	36.8	51.0	36.6
Pioneer 388	99.70	75.7	19.9	3.4	70.6	20.0	9.0	59.8	27.6	----	----	----	----
Disco 95W	98.36	76.6	23.7	7.2	67.4	24.7	17.4	57.3	31.4	----	----	----	----
Sokota 212	97.55	74.9	22.8	31.2	67.4	23.3	35.6	56.6	29.2	56.4	31.0	50.6	30.9
Pride B38A	95.97	78.0	30.2	18.3	71.2	28.3	21.1	----	----	----	----	----	----
Cargill A95N	95.08	71.0	21.9	11.7	----	----	----	----	----	----	----	----	----
Sokota 220	94.06	67.6	19.0	2.6	64.7	19.6	4.8	56.2	25.6	----	----	----	----
Jacques 1004J	93.65	71.0	24.6	5.9	----	----	----	----	----	----	----	----	----
Master F60A	92.64	71.0	26.5	14.0	64.0	25.1	28.1	----	----	----	----	----	----
Wisconsin 355	92.49	68.9	23.8	10.9	57.5	22.0	23.6	49.6	28.1	51.4	30.4	----	----
DeKalb 56	91.46	68.1	24.6	3.3	63.7	24.0	12.3	----	----	----	----	----	----
Agsco 341A	91.13	66.4	22.8	3.3	----	----	----	----	----	----	----	----	----
Trojan E85	89.93	66.7	25.5	17.6	----	----	----	----	----	----	----	----	----
DeKalb 65	86.98	68.0	32.9	3.8	62.0	28.0	12.3	53.4	33.6	55.3	33.7	37.1	33.0
Average of all entries	----	**79.4**	**24.6**	**8.2**	**71.9**	**24.8**	**14.2**	**59.6**	**32.5**	**60.3**	**35.2**	**52.3**	**34.4**

*Differences in yield of less than 6.04 bushels per acre are not statistically significant.

South Central Area

Brule County. Dale Cook, located three to four miles east of Chamberlain, was again the cooperator for this area. The plots were planted May 25, and harvested October 26. Yields were the highest for this area since tests have been conducted on Mr. Cook's farm. Moisture percent at harvest was below that necessary for safe cribbing. The actual precipitation for the season was below normal. This was one of the few areas in the state reporting below-normal rainfall for the growing season.

Table 12. Area 6 (Brule County) 1953 Corn Performance Tests

Hybrid or Variety	1953 Performance Score	Acre Yield Bu.*	Moisture Percent	2-Year Average Yield Bu.	2-Year Average Moisture Percent	3-Year Average Yield Bu.	3-Year Average Moisture Percent
DeKalb 410	115.59	53.8	12.0	47.9	10.5	40.2	28.2
Pioneer 388	112.29	51.1	10.9	40.3	10.3	----	----
Disco 101A	108.51	48.6	11.5	----	----	----	----
Sokota 262	108.08	48.1	10.9	41.5	9.1	35.7	25.4
Van Tassel V727	108.03	48.1	11.0	----	----	----	----
Master F84	106.83	47.7	12.4	38.0	11.8	----	----
Funk G-68	106.01	45.3	11.3	36.0	9.9	33.0	26.0
Gurney 100	104.38	45.6	11.3	----	----	----	----
Sokota 400	101.89	43.8	11.2	37.4	10.0	33.7	25.7
S. Dak. 250 (Exptl. 9)	101.32	43.3	10.9	42.9	9.2	36.6	22.2
Kingscrost KS6	99.46	42.3	11.9	35.1	11.0	31.4	26.5
Jacques 1157A	99.46	42.3	11.9	----	----	----	----
Pioneer 379A	99.09	42.0	11.8	36.7	10.4	31.2	26.3
Tomahawk 42	98.96	42.2	12.7	----	----	----	----
Turners T27	98.58	41.9	12.6	----	----	----	----
Sokota 224	98.56	41.4	11.1	34.8	9.1	30.7	23.5
Pfister P.A.G. 58	98.54	42.0	13.0	----	----	----	----
Farmers 223	98.22	41.9	11.2	39.2	12.1	39.5	24.1
Tekseed Tek 45	93.67	38.8	13.8	----	----	----	----
Funk G-111	93.52	38.4	12.9	----	----	----	----
Pride D36	92.38	37.2	11.7	31.4	10.8	----	----
Cargill 105N	90.68	35.8	11.1	----	----	----	----
Disco 107A	90.64	35.9	11.5	35.5	12.3	32.1	30.0
DeKalb 406	89.94	35.5	11.8	32.0	11.9	----	----
Sokota 270	87.26	33.3	10.9	38.1	9.2	33.5	24.2
Average of all entries	----	**42.7**	**11.8**	**37.8**	**10.5**	**34.3**	**25.6**

*Differences in yield of less than 9.71 bushels are not statistically significant.

South James River Area

Hanson County. The continuous cooperation of Alvin Tilberg has resulted in a trial where 5-year averages on several varieties are available and presented for this area. Yields were high even though the immediate area near the Tilberg farm was fairly dry at planting time. Precipitation in excess of normal during June and August resulted in the fair yields obtained. All varieties were low in moisture content at harvest. The trial was planted May 25 and harvested October 16.

Table 13. Area 7 (Hanson County) 1953 Corn Performance Tests

Hybrid or Variety	1953 Performance Score	Acre Yield Bu.*	Moisture Percent	2-Year Average		3-Year Average		4-Year Average		5-Year Average	
				Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent
Jacques 1153J	116.41	78.0	11.1								
DeKalb 410	110.14	73.1	12.8	61.7	13.1	55.6	24.7	58.6	26.6		
Van Tassel V740	106.06	69.8	14.8								
Pioneer 349	104.55	67.6	12.5	62.9	12.2	56.8	23.9	58.8	26.0		
S. Dak. 250 (Exp. 9)	104.49	66.0	10.3	62.2	10.5	55.6	18.0	57.7	19.3	54.1	20.2
Pioneer 379A	103.60	65.4	11.0	65.0	11.3	59.1	20.5	59.7	22.8		
Sokota 262	102.74	64.7	11.4	60.1	11.4	51.6	20.5				
Pride D66	102.13	65.5	14.4	63.8	12.7						
Trojan F99	102.01	63.7	10.9	60.5	11.1						
F. U. Iowa 306	101.90	65.8	15.5								
F. U. Iowa 4316	101.54	65.9	16.5								
Cargill 108N	101.53	64.4	13.4	58.6	12.4						
Sokota 270	100.11	61.7	10.9	59.8	11.5	53.5	19.3	55.5	20.5	52.0	27.7
Farmers 427A	99.29	62.3	13.9	57.7	13.9	53.0	26.4	54.4	29.6	48.8	30.0
Funk G-30	99.28	61.8	12.9								
Disco 101A	98.05	61.1	14.1								
Funk G-29	98.03	61.9	15.8	62.2	13.5	52.3	27.3	53.8	29.3	48.9	30.0
Gurney 105	96.99	59.5	13.1								
DeKalb 406	95.07	57.4	12.9	58.6	14.0	52.8	26.2	54.5	27.7		
Sokota 400	95.04	56.6	11.3	61.6	11.4	54.9	20.2	55.3	22.3	50.5	23.1
United U32A	94.75	57.5	13.8	61.6	12.1						
Disco 108A	94.46	58.4	16.3								
Tomahawk 30	94.05	56.0	12.2								
Sokota 224	93.87	54.8	10.1	55.3	10.0	49.7	17.8	50.5	19.3	46.6	19.9
Kingscrost KT1	93.17	56.0	14.1	55.5	14.0						
Kingscrost KR2	91.63	55.4	16.2	61.1	13.1	54.4	23.7	56.9	25.5	50.8	27.0
Average of all entries		**62.7**	**13.2**	**60.5**	**12.2**	**54.1**	**22.4**	**56.0**	**24.4**	**50.2**	**25.4**

*Differences in yield of less than 9.30 bushels per acre are not statistically significant.

Southeast Area

Minnehaha County. The 2- to 5-year averages are presented for this area even though the past season was only the second year for the trial to be conducted on the Neil Jensen farm, Dell Rapids. The test area was not fertilized, which was indicated by a lack of nitrogen for the test area during August and September. Yields, though fair, were not as high as those obtained by many farmers in the area. The plot was planted May 23 and harvested October 12.

Table 14. Area 8 (Minnehaha County) 1953 Corn Performance Tests

Hybrid or Variety	1953 Performance Score	Acre Yield Bu.*	Moisture Percent	2-Year Average		3-Year Average		4-Year Average		5-Year Average	
				Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent
Pioneer 377A	111.60	75.9	19.6	71.4	17.6	61.3	26.0	56.3	24.7		
Trojan F99	105.91	71.3	22.5								
Pioneer 349	105.21	73.0	26.7	71.9	24.1	61.4	33.6	56.3	31.1		
Funk G-6	105.13	70.2	22.0	66.2	21.6	56.2	29.3	52.6	27.0		
Funk G-30	104.27	71.0	25.0								
Farmers 223	103.21	70.8	26.6	67.7	24.9	58.4	31.8				
Iowa (F.U.) 4417	102.99	69.4	24.6	65.3	22.6	54.3	32.1	50.0	29.5	52.7	28.5
United U32A	102.53	68.8	24.5	68.0	25.8						
Kingscrost KS6	102.17	66.9	21.9	63.3	19.8	54.0	29.1	50.0	26.2		
Pfister P.A.G. 56	101.24	67.0	23.5	67.4	20.3	55.3	30.4				
Van Tassel V727	101.05	66.4	23.2								
Gurney 100	100.68	66.0	23.2								
Sokota 262	100.64	64.7	21.0	61.8	19.4	52.0	27.7	48.8	25.0		
Tekseed Tek 31	100.61	69.0	28.4								
Sokota 270	100.05	64.0	20.8	67.8	17.8	56.3	26.7	52.0	24.6	50.7	23.1
Sokota 220	98.69	58.5	14.0								
F.U. 4397	98.34	68.3	31.6								
S. Dak. 250 (Exp. 9)	98.16	61.5	20.2	64.3	18.6	56.1	24.6	51.2	22.8	52.7	22.0
Pfister P.A.G. 58	97.69	64.4	26.0								
Sokota 400	97.68	62.9	23.5	63.2	20.6	53.9	28.6	50.9	26.9	50.0	26.0
Iowa (F.U.) 4542	97.36	65.3	28.2								
DeKalb 63	96.80	61.3	22.5	60.4	21.7						
Sokota 224	96.44	58.5	18.2	57.8	16.6	49.4	24.3	48.6	22.3	48.4	22.3
McCurdy 96M	95.96	64.1	28.8								
DeKalb 239	95.21	62.6	27.7								
Pride B45	94.69	61.4	26.5	44.0	23.5						
Tomahawk 14	94.13	60.5	26.1	63.0	22.5	54.2	29.2	51.4	27.6		
Disco 108 A	91.15	59.4	29.7	60.6	27.0						
Average of all entries		**65.8**	**24.2**	**63.8**	**21.4**	**55.6**	**28.7**	**51.6**	**26.2**	50.9	**24.4**

*Differences in yield of less than 6.84 bushels per acre are not statistically significant.

Southeast Area

Clay County. The 1953 test was again conducted on the Clarence Dose farm east of Wakonda. The 2-year averages would be for this location; however, the 3-, 4-, and 5-year averages include results obtained at locations other than the Dose farm. Yields in this trial were excellent. The growing season was characterized by above-normal moisture and temperature in this area. Moisture percent of the corn at harvest time was sufficiently low for most of the varieties to permit safe cribbing. The plot was planted May 19 and harvested October 14 and 15.

Table 15. Area 8 (Clay County) 1953 Corn Performance Tests

Hybrid or Variety	1953 Performance Score	Acre Yield Bu.*	Moisture Percent	2-Year Average		3-Year Average		4-Year Average		5-Year Average	
				Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent	Yield Bu.	Moisture Percent
Gurney 118A	106.55	109.1	18.1								
S. Dak. Exptl. 8	104.95	104.3	15.3	88.3	19.9	80.9	24.6	78.1	25.9	73.0	25.9
Tomahawk 78	104.87	107.3	19.3								
DeKalb 627	104.30	105.9	18.7	90.8	22.7	83.4	26.0	77.6	27.0		
Pfister P.A.G. 299	103.59	102.8	16.2								
F.U. 4316	103.42	104.0	18.1	89.9	21.9						
Pfister P.A.G. 303	103.39	105.2	19.7								
Kingscrost K3A	102.68	103.9	19.5								
Tomahawk 60	100.96	97.1	14.4	84.5	18.4	77.0	22.8				
Disco 108A	100.89	98.4	16.2								
Sokota 270	100.76	87.4	12.4								
Funk G-16A	100.57	98.9	17.5	83.4	22.0	75.1	26.8				
DeKalb 410	100.47	96.7	14.9	86.1	19.0	82.0	22.2	76.6	23.2	72.5	23.8
Vinton-V-35	100.43	98.2	16.9	84.8	21.6	77.5	26.3	70.8	27.4		
Pioneer 349	100.28	97.5	17.6	86.1	19.8	82.5	22.9				
Pioneer 352	99.63	97.6	17.8	88.6	21.1						
Farmers 427A	99.62	98.3	18.7	86.9	22.5	81.3	27.0	75.3	28.2	71.5	28.3
Tekseed 115	99.05	96.5	17.6	85.7	21.8	78.4	26.3	74.4	27.5		
F.U. Iowa 4542	98.99	92.1	12.1								
Webster 402	98.24	95.5	18.0								
Sokota 400	97.96	92.0	14.1	77.1	15.5	70.8	19.0	66.8	20.6	65.2	20.8
Nebraska 1389A	97.88	94.6	17.6								
Funk G29A	97.30	95.3	19.7	81.6	24.5						
Turners N14A	97.25	94.2	18.4								
Kingscrost KT1	96.20	92.1	17.9	81.1	20.2						
United U41	95.80	94.2	21.4	77.6	22.2	75.6	26.1				
Pride D66	95.22	89.5	16.6	79.5	22.1	71.9	26.7	68.3	27.9		
F.U. Iowa 4417	93.68	83.7	12.4	76.4	14.1						
Average of all entries		**97.6**	**17.0**	**84.0**	**20.5**	**78.0**	**24.7**	**74.5**	**26.0**	**70.6**	**24.7**

*Differences in yield of less than 9.97 bushels per acre are not statistically significant.