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South Dakota Corn Performance Test, 1944

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South Dakota

CORN

PERFORMANCE

TEST, 1944

SOUTH DAKOTA AGRICULTURAL EXPERIMENT STATION
SOUTH DAKOTA STATE COLLEGE . . . BROOKINGS

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South Dakota Corn Performance Test, 1944

By KARL F. MANKE and J. E. GRAFIUS¹

The South Dakota Corn Performance Test is conducted each year to supply impartial information concerning hybrids and open-pollinated varieties to farmers, hybrid seed-corn dealers and producers, and others interested in corn. The plots for this test are located in nine districts of eastern South Dakota. There were 456 entries comprising 156 different hybrids and open-pollinated varieties in 1944. Two to five adapted open-pollinated varieties were planted in each plot as check varieties. Data are presented on yield, moisture percentage of the grain at harvest, and stand.

It should be emphasized that there are many hybrids which have performed well in South Dakota and that the top hybrid in any district for any one year is not necessarily the best one. Statistical measures are included to be used in judging the advantage or disadvantage of purchasing a given hybrid. Long-time averages are the best indication of the performance of a hybrid and as these tests continue to be conducted their results will become more valuable. Used with discretion, these data will provide readers with valuable information on the production, sale, and purchase of hybrid corn.

Description of Tests

These tests were conducted by the Agronomy Department of the South Dakota Agricultural Experiment Station in cooperation with individual farmers in each of the nine districts.²

Check entries. Fourteen open-pollinated varieties were used as check varieties. They were All-Dakota 610, All-Dakota 626, Alta, Brookings 86, Brown County Yellow Dent, Early Murdock, Eureka Yellow Dent, Fulton Yellow Dent (Swope), Fulton Yellow Dent (Vincent), Golden Jewel, Minnesota 13, Reid Yellow Dent, Silver King, and Wimple's Yellow Dent. Two to five of these varieties were included at locations in which they were adapted. (See Tables 3 to 13.)

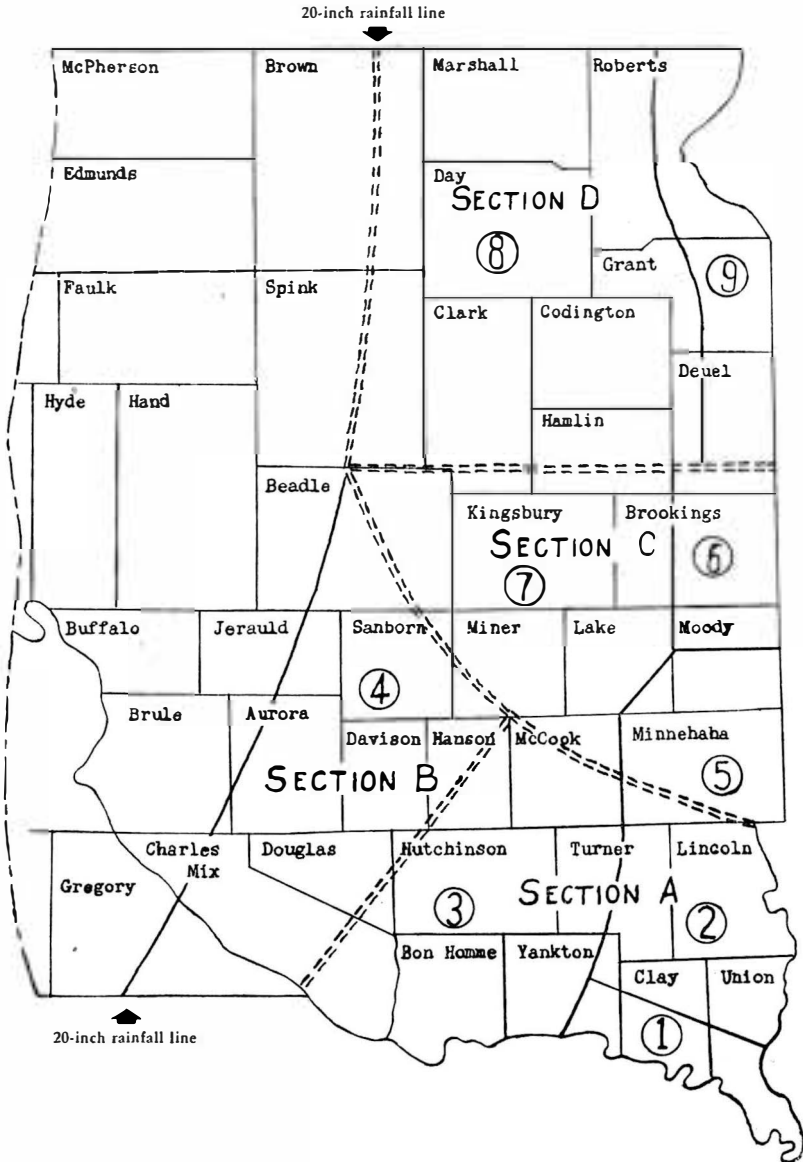
Location of Plots. The plots where the corn was grown for these tests were in nine different agricultural districts in the part of the state east of the 20-inch rainfall line (see map on page 3).

These districts were set up because they have definite variations in length of growing season, rainfall, and soil type. They were grouped into Section A (Districts 1, 2 and 3), Section B (District 4), Section C (District 5, 6 and 7), and Section D (Districts 8 and 9). It should be pointed out that commercial

¹ Assistant Agronomist and Associate Agronomist respectively.

² Part of the funds used in conducting these tests was derived from entry fees collected from the seed corn companies submitting hybrids.

hybrids entered in a district must be entered in all districts of a section (see map). This procedure of sectional entry has not met the approval of many of many of the commercial companies and they have questioned the entry of



Location of plots. The region of the State east of the approximate 20-inch rainfall line was divided into nine districts. They differ in length of growing season, rainfall, and soil type. These districts were then grouped into four sections.

hybrids in districts other than the district in which they know the hybrid to be adapted. However, it is felt that sectional entry permits persons unfamiliar with a specific hybrid better to ascertain the limits of its adaptation and for this reason the sectional entry system was adopted and has been retained.

The test plots were located on farms representative of most farms of the district. The plots were planted in the cooperator's field of corn and were cultivated exactly as the rest of the field.

Table 1. Entries for the 1944 Tests and Contributors of Seed
Hybrid Entries

| | | |
|----------------------------------|-----------------------------|---------------------|
| Funk's G-Hybrids | Funk Bros. Seed Co. | Bloomington, Ill. |
| Green Acres Hybrids | Green Acres | Hartington, Nebr. |
| Hoosier-Crost Hybrids | Edw. J. Funk & Son | Kentland, Ind. |
| Iowearth Hybrids | Michael-Leonard Seed Co. | Sioux City 6, Ia. |
| Jacques Proven Hybrids | Jacques Seed Co. | Prescott, Wis. |
| Kingscrost Hybrids | Northrup, King & Co. | Minneapolis, Minn. |
| Lowe Hybrids | Lowe Seed Co. | Aroma Park, Ill. |
| Master Hybrids | Farmer Seed & Nurs. Co. | Faribault, Minn. |
| Minhybrids | Minhybrid Growers Assn. | Montevideo, Minn. |
| Moews Hybrids | Moews Seed Co. | Granville, Ill. |
| Pioneer Hi-Breds | Pioneer Hi-Bred Corn Co. | Des Moines 9, Ia. |
| Reid National Hybrids | Reid National Corn Co. | Anamosa, Ia. |
| Sokota Hybrids | Sokota Growers Assn. | Brookings, S. Dak. |
| Standard Hybrids | Standard Seed Co. | Clarinda, Ia. |
| Turner Hybrids | Turner Hybrid Seed Corn Co. | Grand Junction, Ia. |
| Open-pollinated Varieties | | |
| All-Dakota 610 | So. Dak. Experiment Station | Brookings |
| All-Dakota 626 | So. Dak. Experiment Station | Brookings |
| Alta | Highmore Experiment Station | Highmore |
| Brookings 86 | So. Dak. Experiment Station | Brookings |
| Brown County Yellow Dent | Frank McHugh | Aberdeen |
| Early Murock | Geo. P. Sexauer & Son | Brookings |
| Eureka Yellow Dent | Eureka Experiment Station | Eureka |
| Fulton Yellow Dent | Frank Swope | Orient |
| Fulton Yellow Dent | A. G. Vincent | Letcher |
| Golden Jewel | Henry Preheim | Marion |
| Minnesota 13 | Cruse Bros. | Brookings |
| Reid Yellow Dent | Geo. P. Sexauer & Son | Brookings |
| Silver King | T. Englebretson | Selby |
| Wimple's Yellow Dent | Geo. P. Sexauer & Son | Brookings |

Method of Planting. Each entry was planted in a plot 2 hills wide and 10 hills long and replicated 6 times. Planting was done at the rate of 3 kernels per hill in all fields except those in Districts 1, 2, and 3 where 4 kernels per hill were planted. All planting was done by hand.

Growing Conditions. The plantings were made at later dates than optimum for usual corn planting—between May 17 and June 1. Almost without

exception planting was done under unfavorable conditions of high surface soil moisture and poor stands resulted at many locations. In some locations water stood on the plots for prolonged periods during the growing season and for this reason entire replications had to be abandoned. In spite of late planting and exceptionally high rainfall during the early summer, corn, in general, made fine growth and excellent yields were obtained. The delayed planting and cool summer had its effect on moisture content of the grain at harvest time and moisture content of corn was generally higher than in recent years. In many cases the unusually warm and dry weather during October greatly aided in ripening corn which otherwise would have been extremely immature.

Table 2. General Information: South Dakota Corn Performance Test, 1944

| District | County | Post Office | Cooperator | Soil Type | Date Planted | Date Harvested |
|----------|------------|--------------|------------------|-------------------------|--------------|----------------|
| 1 | Clay | Wakonda | Eldred Hesla | Kranzburg silt loam | May 30 | Nov. 2 |
| 2* | Turner | Davis | Rudy Feenstra | Barnes silt loam | May 31 | |
| 3 | Hutchinson | Parkston | Emanuel Sinkbeil | Barnes silt loam | May 24 | Oct. 25 |
| 4 | Sanborn | Letcher | A. G. Vincent | Barnes sandy loam | May 17 | Oct. 23 |
| 5 | Minnehaha | Brandon | Ray Knutson | Moody silt loam | May 20 | Oct. 21 |
| 6 | Brookings | Brookings | James Biggar | Lamoure silty clay loam | June 1 | Nov. 1 |
| 7 | Kingsbury | Lake Preston | Geo. Larson | Kranzburg silt loam | May 21 | Oct. 16 |
| 8 | Codington | Watertown | M. H. Suttor | Kranzburg silt loam | May 25 | Oct. 20 |
| 9 | Grant | Milbank | Chris Christian | Barnes silt loam | May 26 | Oct. 28 |

* The plot in District 2, Turner County, was not harvested. The farmer inadvertently put the corn included in the plot into the silo.

Measuring Performance

Entries in the 1944 tests were rated on the basis of yield and moisture content. Stands are reported also for all entries in the various districts. Lodging was not severe this season and no attempt was made to differentiate between the entries on this basis.

Yields. Yields of entries were converted to the number of bushels of ear corn per acre with 15 per cent moisture in the grain. As indicated in Table 2 no yields were obtained in District 2.

Moisture Content. Since the growing of hybrid corn has become a general practice among farmers in many sections of the state it has no longer become essential that the crop be completely mature at the time of the first frost. That is, corn now only has to meet the moisture requirements deemed necessary for safe storage rather than for germination. There has been a tendency to grow hybrids which utilize the whole growing season. Frequently the result of this trend has been to grow hybrids which are too late maturing for the average growing season. It thus becomes of primary importance to judge hybrids not only on their ability to withstand lodging and to produce high yields, but on their ability to ripen within the limits of an average season.

The sampling methods used in determining the moisture content of individual hybrids are subject to certain experimental errors. In judging the moisture content of the entries reported herein samples were taken on three of the six replications at east location. Where less than six replications were harvested, moisture samples were taken on at least half of the replications harvested. The moisture content figures were averaged and used as a measure of the maturity of the hybrid. In order to rate the varieties into classes for moisture content they were compared with the average moisture content of the open-pollinated varieties. Moisture Group I consists of hybrids which did not exceed the average moisture content of the open-pollinated varieties by more than the minimum level of significance for moisture. The minimum level of significance is a statistical measure which attempts to define a real difference in moisture content between entries and a difference due to chance variation. Group II hybrids exceeded the open-pollinated varieties in moisture by the minimum level of significance but not by more than twice this figure. When hybrids exceeded the average of the open-pollinated varieties in moisture content by at least twice the minimum level of significance they were classed in Group III.

Chance Variations. Anyone who has observed corn in the field knows that yield and other data vary greatly from one part of the field to another. These variations are due to differences in such conditions as soil type, position, slope, and stand. The influences of the environment may be partly overcome by replication, which provides an observation of the average performance of the same variety located in a number of different places in the same field. Proper care in the choice of plot locations and in the design of the plot reduces the variations that are not due to the entries themselves but does not entirely remove them.

A certain amount of difference between entries is necessary before they can be said to vary significantly. When they vary only slightly, variations may be due to differences in field conditions and not in the entries themselves. Significant differences were computed for the yield and moisture and are included at the bottom of the table for each district and section. The difference between the two hybrids being compared must exceed the significant difference before it can be said to be a true difference rather than a chance variation. However, it should again be emphasized that one year's results are not so reliable as those obtained over a period of years.

Results of Tests

The 1944 data for all entries, both commercial (those offered for sale) and experimental (those not yet released for commercial use) are presented in Tables 3 to 10 inclusive. Average yields and moisture percentages of all entries in Sections A, C, and D are presented in Tables 11, 12 and 13.

The average yields and moisture contents of hybrids and varieties grown for two and three years are presented in Tables 14 to 21 inclusive. In each of these average tables the performance of the various hybrids and varieties for

a given series of years is compared with the performance of an open-pollinated variety during the same period. For example, it will be seen from Table 14 that during three seasons 1941, 1942 and 1944, four hybrids, on the average, out-yielded Wimple's Yellow Dent. These comparisons are presented in terms of per cent of the open-pollinated variety yield.

How to Use This Circular as a Guide in Choosing Hybrids

Farmers have developed the practice of growing more than one hybrid corn variety to facilitate planting and harvesting and to avoid reliance on a single choice for their entire year's crop. This is a good practice and it should be encouraged. The choice of hybrid is a difficult one and as far as possible farmers ought to rely on actual performance records in making their choices.

In using this circular a farmer should turn first to the map on page 3 and determine the district in which he lives or decide which of the districts most closely resembles his individual situation. For example, a farmer living in the southern part of Moody County is within the limits of District 5 and the plot in which he is most interested is reported in Tables 6, 12, and 17. This is the plot grown in Minnehaha County near Brandon. The results of hybrids grown in District 5 in 1944 are given in Table 6. Here the farmer finds the hybrids separated into three groups according to their relative moisture content at harvest in comparison with the average moisture content of two open-pollinated varieties Golden Jewel and Wimple's Yellow Dent. Also at the bottom of the table is the statement, "A difference between two entries of less than 13.5 bushels in yield and 2.5% in moisture content is not significant." This means that if we subtract from the yield of the highest yielding commercial hybrid (Master F 101: 70.1 bushels per acre) 13.5 bushels we get the value 56.6 bushels; therefore the differences between all the hybrids yielding 56.6 bushels or more are due to chance and are not true differences. Counting down in Moisture Group I the farmer finds 16 hybrids within this 13.5 bushel difference. Now with reference to the moisture contents of these 16 commercial hybrids he finds rather important differences and is able to narrow down his choices to not only those which gave the highest yields but also those which approached a safe moisture for cribbing. The lowest moisture content reported for the 16 highest yielding commercial hybrids is 23.6%. If the farmer then adds to 23.6% to the 2.5% due to chance (as determined by the minimum level of significance), he gets the figure 26.1%. Three commercial hybrids among the 16 have moisture contents below this level. They are Kingscrot KS2 (23.6%), Reid National 110 A (25.5%), and Kingscrot KS6 (25.9%).

Hybrids should be judged by their performance over a period of years wherever such information is available. Table 17 gives two- and three-year averages for yield per acre and moisture content at harvest in District 5, Minnehaha County. Also the hybrids on which two- and three-year averages are available are compared with a standard open-pollinated variety, Golden

Jewel, in terms of the percentage yield of the hybrid in terms of the yield of the open-pollinated variety for a corresponding period. Following through with the three best hybrids on the basis of the 1944 results the farmer living in District 5 will find that in Table 17 these hybrids did not perhaps demonstrate such a high degree of superiority over the longer period of time as they did in 1944. This illustrates the point very well that *all* the data should be examined before a choice is made.

The sectional averages as presented in Tables 11, 12, and 13 are of perhaps greatest interest to seed dealers who become interested in knowing the limits of adaptation of particular hybrids. Table 12, for example, gives the average yields and moisture contents of 33 commercial hybrids grown in 1944 in Minnehaha, Brookings, and Kingsbury Counties. The minimum level of significance values are given at the bottom of the table and are equally applicable in evaluating differences between hybrids for the section as they were for the district.

Table 3—DISTRICT 1 (Clay County): Results of Tests of Corn Hybrids and Varieties on the Farm of Eldred Hesla, Wakonda. (Harvested November 2, 1944)

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Moisture at harvest | Stand |
|-------------------------------------|---|---------------------------|---------------|
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> |
| Moisture Group I | | | |
| Kingscrot KY | 104.7 | 22.6 | 84.6 |
| Turner S 56 | 103.8 | 24.0 | 87.1 |
| Reid National 115 | 103.5 | 20.0 | 88.3 |
| Kingscrot K 3 | 102.1 | 22.6 | 85.0 |
| Jacques 1157-J | 100.8 | 22.0 | 78.3 |
| Funk's G-68 (Exp.)* | 99.3 | 24.2 | 84.6 |
| Jacques 1205-J | 98.1 | 17.4 | 79.2 |
| Master F 106 | 97.4 | 24.1 | 92.9 |
| Turner S 52 | 97.3 | 24.2 | 84.2 |
| Iowearth AF 11 | 96.7 | 20.0 | 77.9 |
| Hoosier-Crost F145 (Exp.)* | 95.5 | 21.4 | 85.0 |
| Green Acres LM 81 C 2 (Exp.)* | 95.2 | 22.4 | 87.5 |
| Master F 101 | 95.0 | 21.0 | 89.2 |
| Lowe 14 | 94.6 | 24.8 | 81.2 |
| Pioneer Hi-Bred 331 | 93.2 | 23.2 | 83.3 |
| Pioneer Hi-Bred 353 A | 92.0 | 20.1 | 88.8 |
| Kingscrot KR 2 | 91.8 | 22.2 | 75.0 |
| Standard 615 | 91.1 | 25.0 | 77.1 |
| Green Acres 579 (Exp.)* | 90.2 | 25.0 | 85.8 |
| Funk's G-39 (Exp.)* | 89.2 | 24.0 | 85.4 |
| Moews 15 | 89.1 | 21.4 | 92.1 |
| Green Acres 196 | 88.2 | 25.6 | 80.8 |
| Reid National 118 R | 87.5 | 23.2 | 80.4 |
| Green Acres 396 (Exp.)* | 87.4 | 24.6 | 90.8 |
| Green Acres LM 94 (Exp.)* | 86.5 | 24.6 | 86.7 |
| Moews 14 | 85.9 | 23.8 | 73.8 |
| Iowearth 16 H (Exp.)* | 85.6 | 24.8 | 74.2 |
| Funk's G-51 (Exp.)* | 85.3 | 23.5 | 81.2 |
| Master S-7 (Exp.)* | 84.9 | 24.8 | 83.3 |
| Lowe 15 | 84.7 | 20.8 | 80.8 |
| Green Acres 90 (Exp.)* | 83.3 | 24.6 | 83.3 |
| Wimple's Yellow Dent | 81.2 | 19.0 | 68.8 |
| Hoosier-Crost F 140 (Exp.)* | 77.6 | 22.7 | 77.5 |
| Funk's G-550 W | 77.5 | 22.0 | 82.5 |
| Iowearth 16 | 76.8 | 23.7 | 78.8 |
| Standard 405 | 74.5 | 23.2 | 72.5 |
| Lowe 52 | 72.3 | 21.7 | 75.4 |
| Green Acres 113 | 70.9 | 25.6 | 67.5 |
| Green Acres LM 95 (Exp.)* | 68.7 | 24.2 | 70.4 |
| Sokota 417 | 68.1 | 16.6 | 88.3 |

(Continued on page 11)

*Experimental entry

A difference between two entries of less than 22.0 bushels in yield and 4.4% in moisture content is not significant.

Table 3—(Cont'd.) DISTRICT 1 (Clay County): Results of Tests of Corn Hybrids and Varieties on the Farm of Eldred Hesla, Wakonda. (Harvested November 2, 1944)

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | | Moisture at harvest | Stand |
|----------------------------------|---|---------------|---------------------|-------|
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> | |
| Funk's G-37 | 66.8 | 23.4 | 57.0 | |
| Sokota 413AA | 62.5 | 18.0 | 82.9 | |
| Reid Yellow Dent | 61.3 | 23.6 | 64.6 | |
| Sokota 420 | 59.4 | 16.8 | 71.2 | |
| Sokota 418 | 59.4 | 18.5 | 76.7 | |
| Green Acres 41 (Exp.)* | 57.3 | 24.2 | 65.6 | |
| Moisture Group II | | | | |
| Iowalth 25 T (Exp.)* | 99.8 | 26.0 | 93.8 | |
| Green Acres 395 | 98.0 | 26.3 | 84.2 | |
| Iowalth 25 Y (Exp.)* | 94.8 | 26.4 | 89.6 | |
| Kingscrot KY 2 | 93.7 | 26.2 | 76.9 | |
| Green Acres LM (Exp.)* | 92.2 | 28.5 | 81.7 | |
| Turner S 51 A | 91.5 | 26.2 | 87.9 | |
| Iowalth BC 5 (Exp.)* | 90.6 | 26.2 | 80.0 | |
| Green Acres 392 (Exp.)* | 89.7 | 27.0 | 83.3 | |
| Green Acres LM 20 (Exp.)* | 89.5 | 27.6 | 85.4 | |
| Iowalth AQ 9 (Exp.)* | 88.5 | 26.0 | 87.9 | |
| Green Acres LM 421 (Exp.)* | 87.6 | 27.0 | 82.5 | |
| Funk's G-114 | 86.8 | 26.6 | 81.2 | |
| Reid National 117 R | 86.1 | 27.5 | 88.3 | |
| Green Acres BRTE (Exp.)* | 84.8 | 27.2 | 86.7 | |
| Lowe 520 | 83.3 | 29.8 | 82.5 | |
| Iowalth BC 4 | 81.6 | 27.5 | 83.8 | |
| Funk's G-57 | 80.8 | 25.8 | 81.2 | |
| Funk's G-66 | 80.8 | 28.0 | 82.5 | |
| Iowalth AQ | 77.4 | 28.7 | 82.5 | |
| Turner S 55 | 76.7 | 28.0 | 70.0 | |
| Green Acres BR 422 (Exp.)* | 75.0 | 26.4 | 63.3 | |
| Iowalth BC 7 (Exp.)* | 73.1 | 25.8 | 72.5 | |
| Funk's G-29 | 72.6 | 26.6 | 72.1 | |
| Green Acres 80 (Exp.)* | 66.7 | 26.5 | 65.0 | |
| Moisture Group III | | | | |
| Green Acres 64 (Exp.)* | 85.8 | 31.2 | 84.6 | |

*Experimental entry

A difference between two entries of less than 22.0 bushels in yield and 4.4% in moisture content is not significant.

Table 4—DISTRICT 3 (Hutchinson County): Results of Corn Hybrids and Varieties on the Farm of Emanuel Sinkbeil, Parkston. (Harvested Oct. 25, 1944)

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Moisture at harvest | Stand |
|-------------------------------------|---|---------------------------|---------------|
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> |
| Funk's G-114 | 71.1 | 28.3 | 75.0 |
| Funk's G-66 | 67.0 | 30.8 | 72.9 |
| Funk's G-68 (Exp.)* | 64.6 | 25.0 | 63.3 |
| Standard 405 | 64.4 | 26.8 | 69.6 |
| Pioneer 353 A | 60.0 | 22.7 | 67.1 |
| Funk's G-29 | 59.4 | 33.2 | 67.9 |
| Lowe 14 | 58.7 | 30.0 | 66.7 |
| Funk's G-37 | 57.9 | 34.0 | 60.8 |
| Funk's G-51 (Exp.)* | 55.5 | 24.5 | 47.9 |
| Reid National 118 R | 55.5 | 27.5 | 67.9 |
| Jacques 1157-J | 55.3 | 30.0 | 61.7 |
| Reid National C White (Exp.)* | 55.3 | 29.0 | 62.5 |
| Funk's G-39 (Exp.)* | 54.0 | 30.0 | 51.7 |
| Iowearth AF 11 | 53.7 | 22.2 | 57.1 |
| Master S-7 (Exp.)* | 53.7 | 23.2 | 64.6 |
| Jacques 1205 J | 53.2 | 27.8 | 64.6 |
| Moews 14 | 52.9 | 29.1 | 60.4 |
| Funk's G-57 | 52.9 | 30.6 | 60.0 |
| Iowearth AQ | 52.7 | 28.3 | 57.5 |
| Master F 106 | 52.2 | 27.4 | 64.2 |
| Green Acres 395 | 51.9 | 30.5 | 63.3 |
| Funk's G-550 W | 51.4 | 21.0 | 55.4 |
| Green Acres 196 | 51.4 | 35.0 | 66.7 |
| Iowearth 16 | 50.9 | 27.9 | 58.8 |
| Reid National 115 | 49.6 | 34.4 | 60.0 |
| Iowearth BC 4 | 48.8 | 29.1 | 46.2 |
| Standard 615 | 48.3 | 28.0 | 56.2 |
| Moews 15 | 47.8 | 30.8 | 64.2 |
| Green Acres 113 | 47.5 | 28.2 | 58.3 |
| Reid National 117R | 46.5 | 23.5 | 39.2 |
| Sokota 418 | 46.5 | 17.8 | 61.2 |
| Lowe 52 | 46.2 | 25.4 | 52.5 |
| Sokota 417 | 45.9 | 15.7 | 70.0 |
| Sokota 413 AA | 45.7 | 16.4 | 70.8 |
| Lowe 520 | 44.6 | 37.1 | 57.5 |
| Lowe 15 | 43.9 | 32.0 | 53.3 |
| Turner S 56 | 43.6 | 28.5 | 55.0 |
| Pioneer 331 | 43.1 | 31.0 | 63.3 |
| Kingscrot KY | 42.8 | 30.5 | 59.6 |
| Kingscrot KY 2 | 42.8 | 32.5 | 52.1 |
| Turner S 51 A | 42.6 | 31.5 | 54.6 |
| Turner S 55 | 41.8 | 38.7 | 53.8 |
| Master F 101 | 41.5 | 24.3 | 55.8 |
| Turner S 52 | 41.3 | 29.1 | 53.3 |
| Kingscrot K 3 | 40.5 | 30.7 | 35.8 |
| Silver King | 39.2 | 21.6 | 45.0 |
| Wimple's Yellow Dent | 38.9 | 31.7 | 52.5 |
| Kingscrot KR 2 | 38.7 | 28.3 | 50.4 |
| Sokota 420 | 38.7 | 17.5 | 66.2 |

*Experimental entry

A difference between two entries of less than 20.9 bushels in yield is not significant.

Table 5—DISTRICT 4 (Sanborn County): Results of Tests of Corn Hybrids and Varieties on the Farm of A. G. Vincent, Letcher. (Harvested October 23, 1944)

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Moisture at harvest | Stand |
|-------------------------------------|---|---------------------------|---------------|
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> |
| Moisture Group I | | | |
| Moews 14 | 81.3 | 20.8 | 85.9 |
| Master F101 | 74.6 | 20.7 | 86.2 |
| Iowearth A | 68.7 | 19.3 | 81.1 |
| Silver King | 68.1 | 20.1 | 94.1 |
| Pioneer Hi-Bred 359 | 67.6 | 16.4 | 81.9 |
| Funk's G-178 | 65.3 | 17.9 | 90.3 |
| Funk's G-179 | 63.8 | 20.5 | 83.1 |
| Funk's G-550W | 61.7 | 17.2 | 87.3 |
| Pioneer Hi-Bred 379 | 60.4 | 17.4 | 78.5 |
| Funk's G-35 | 60.4 | 17.6 | 78.0 |
| Iowearth S | 58.7 | 18.2 | 84.5 |
| Jacques Proven Hybrid 1104-T | 58.7 | 20.8 | 78.6 |
| Funk's G-1 | 58.2 | 17.3 | 78.7 |
| Funk's G-3 (Exp.)* | 58.0 | 18.0 | 76.4 |
| Kingscrot KS 6 | 57.8 | 19.1 | 81.1 |
| Iowearth W-12 (Exp.)* | 56.0 | 16.8 | 81.1 |
| Fulton Yellow Dent (Vincent) | 55.3 | 18.2 | 77.7 |
| Sokota 418 | 50.1 | 16.9 | 81.1 |
| Kingscrot KA4 | 48.8 | 14.3 | 77.2 |
| Sokota 417 | 48.3 | 15.6 | 76.3 |
| Sokota 413 AA | 47.5 | 14.0 | 73.4 |
| Sokota 420 | 47.4 | 14.8 | 81.4 |
| Funk's G-177 | 47.3 | 19.2 | 78.8 |
| Moisture Group II | | | |
| Reid National 115 | 73.9 | 22.6 | 79.3 |
| Kingscrot KR2 | 68.0 | 22.6 | 76.3 |
| Reid National 110A | 61.7 | 22.6 | 79.4 |
| Funk's G-31 | 65.3 | 21.9 | 81.9 |
| Funk's G-7 | 60.4 | 21.9 | 79.4 |
| Moisture Group III | | | |
| Master F106 | 73.9 | 25.1 | 79.1 |
| Funk's G-29 | 70.1 | 24.6 | 85.9 |
| Moews 15 | 69.9 | 24.4 | 86.2 |
| Jacques Proven Hybrid 1121 | 59.8 | 23.9 | 79.7 |
| Reid National C-White (Exp.)* | 58.8 | 23.6 | 79.2 |
| Funk's G-12 | 57.0 | 23.6 | 71.8 |

*Experimental entry

A difference between two entries of less than 10.3 bushels in yield and 2.1% in moisture content is not significant.

Table 6—DISTRICT 5 (Minnehaha County): Results of Tests of Corn Hybrids and Varieties on the Farm of Ray Knutson, Brandon.
(Harvested October 21, 1944)

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | | Moisture at harvest | Stand |
|-----------------------------------|---|---------------|---------------------------|-------|
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> | |
| Moisture Group I | | | | |
| Turner J 20 (Exp.)* | 70.6 | 28.6 | 77.3 | |
| Master F 101 | 70.1 | 29.9 | 80.2 | |
| Iowearth 11 (Exp.)* | 69.0 | 28.8 | 81.2 | |
| Master S 7 (Exp.)* | 67.8 | 28.5 | 76.5 | |
| Turner T 46 (Exp.)* | 66.4 | 29.9 | 80.0 | |
| Funk's G-12 | 65.7 | 29.8 | 71.0 | |
| Kingscrost KS 6 | 65.6 | 25.9 | 82.5 | |
| Pioneer 322 | 65.2 | 27.7 | 76.5 | |
| Master F 105 | 64.9 | 28.0 | 76.9 | |
| Funk's G-1 | 64.4 | 26.2 | 73.1 | |
| Funk's G-178 (Exp.)* | 63.6 | 25.5 | 72.5 | |
| Iowearth S 2 (Exp.)* | 63.6 | 26.6 | 72.1 | |
| Reid National 110-G (Exp.)* | 63.3 | 28.5 | 78.1 | |
| Iowearth A | 62.7 | 27.3 | 72.7 | |
| Kingscrost 337 (Exp.)* | 62.6 | 27.4 | 82.1 | |
| Funk's G-7 | 61.3 | 27.4 | 72.3 | |
| Iowearth 10 (Exp.)* | 61.2 | 28.6 | 75.0 | |
| Funk's G-179 (Exp.)* | 61.1 | 26.3 | 76.5 | |
| Reid National 110 | 60.6 | 26.6 | 77.9 | |
| Pioneer 353 A | 60.5 | 27.4 | 66.7 | |
| Moews 15 | 59.9 | 29.5 | 65.0 | |
| Iowearth A 7 (Exp.)* | 59.9 | 27.4 | 62.1 | |
| Reid National 110 A | 59.5 | 29.1 | 73.5 | |
| Reid National 12 (Exp.)* | 59.3 | 27.9 | 73.5 | |
| Funk's G-177 (Exp.)* | 58.7 | 25.5 | 71.0 | |
| Reid National 95 | 58.0 | 25.5 | 81.9 | |
| Kingscrost KS2 | 57.4 | 23.6 | 77.7 | |
| Reid National 2L (Exp.)* | 57.2 | 28.6 | 60.2 | |
| Master F 82 | 57.1 | 27.1 | 82.1 | |
| Minhybrid 405 | 56.9 | 26.7 | 71.2 | |
| Reid National 112 | 56.0 | 27.7 | 71.2 | |
| Turner T 12 | 55.9 | 28.0 | 66.0 | |
| Iowearth S | 54.8 | 26.7 | 77.7 | |
| Reid National 104 | 54.5 | 28.1 | 72.5 | |
| Pioneer 359 | 53.9 | 23.7 | 63.8 | |
| Golden Jewel | 53.9 | 28.4 | 69.2 | |
| Kingscrost KN 1 | 51.6 | 26.9 | 76.0 | |
| Pioneer 379 | 51.2 | 24.5 | 68.3 | |

(Continued on page 15)

*Experimental entry

A difference between two entries of less than 13.5 bushels in yield and 2.5% in moisture content is not significant.

Table 6—(Cont') DISTRICT 5 (Minnehaha County): Results of Tests of Corn Hybrids and Varieties on the Farm of Ray Knutson, Brandon. (Harvested October 21, 1944)

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Moisture at harvest | Stand |
|-------------------------------------|---|---------------------------|---------------|
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> |
| Sokota 420 | 49.3 | 22.8 | 71.7 |
| Reid National B White (Exp.)* | 49.2 | 29.4 | 64.6 |
| Wimple's Yellow Dent | 48.8 | 27.0 | 55.0 |
| Sokota 418 | 47.3 | 24.8 | 71.0 |
| Kingscrost KA 4 | 45.4 | 20.7 | 67.7 |
| Sokota 417 | 43.7 | 23.0 | 70.4 |
| Sokota 413 AA | 41.3 | 22.5 | 63.8 |
| Early Murdock | 35.3 | 26.8 | 54.6 |
| Moisture Group II | | | |
| Turner T 26 (Exp.)* | 73.7 | 30.6 | 77.5 |
| Funk's G-38 (Exp.)* | 69.6 | 30.3 | 74.6 |
| Lowe 23 | 64.3 | 31.0 | 79.2 |
| Funk's G-31 | 62.3 | 30.9 | 69.0 |
| Lowe 15 | 61.3 | 30.0 | 69.4 |
| Kingscrost KR 2 | 61.0 | 30.2 | 75.0 |
| Reid National C White (Exp.)* | 56.4 | 30.2 | 56.2 |
| Moisture Group III | | | |
| Funk's G-29 | 70.2 | 32.7 | 77.7 |

*Experimental entry

A difference between two entries of less than 13.5 bushels in yield and 2.5% in moisture content is not significant.

Table 7—DISTRICT 6 (Brookings County): Results of Tests of Corn Hybrids and Varieties on the Farm of James Biggar, Brookings. (Harvested November 1, 1944)

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Moisture at harvest | Stand |
|-------------------------------------|---|---------------------|---------------|
| Moisture Group I | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> |
| Iowearth 11 (Exp.)* | 43.1 | 35.2 | 63.3 |
| Iowearth A 7 (Exp.)* | 41.2 | 37.8 | 63.3 |
| Master F 82 | 35.0 | 30.0 | 66.7 |
| Sokota 418 | 34.4 | 27.0 | 72.5 |
| Kingscrot KS 2 | 32.7 | 26.6 | 57.2 |
| Funk's G-179 (Exp.)* | 32.4 | 33.8 | 56.7 |
| Kingscrot KS 6 | 32.0 | 29.0 | 57.8 |
| Sokota 417 | 30.9 | 24.5 | 61.7 |
| Funk's G-1 | 30.5 | 33.9 | 57.8 |
| Funk's G-178 (Exp.)* | 29.9 | 29.7 | 51.7 |
| Fulton Yellow Dent | 29.8 | 37.8 | 68.9 |
| Pioneer 359 | 29.8 | 38.1 | 72.5 |
| Funk's G-177 (Exp.)* | 28.9 | 32.7 | 55.3 |
| Kingscrot 337 (Exp.)* | 28.8 | 37.9 | 66.4 |
| Turner T 12 (Exp.)* | 28.4 | 38.5 | 51.7 |
| Iowearth S | 28.3 | 34.5 | 59.2 |
| Pioneer 353A | 27.7 | 35.5 | 58.1 |
| Kingscrot KN 1 | 27.3 | 31.4 | 50.0 |
| Sokota 413 AA | 27.1 | 29.9 | 63.1 |
| Pioneer 379 | 25.4 | 32.7 | 53.6 |
| All-Dakota 610 | 23.2 | 25.0 | 55.8 |
| Sokota 420 | 23.2 | 35.7 | 55.6 |
| Kingscrot KA 4 | 23.1 | 23.7 | 51.4 |
| Reid National A White (Exp.)* | 20.8 | 32.6 | 51.7 |
| Brookings 86 | 11.6 | 25.1 | 25.3 |
| Moisture Group II | | | |
| Master S 7 (Exp.)* | 35.8 | 39.2 | 68.1 |
| Master F 101 | 35.3 | 44.2 | 63.3 |
| Iowearth A | 33.1 | 42.2 | 64.4 |
| Pioneer 322 | 32.7 | 44.0 | 72.2 |
| Funk's G-12 | 31.6 | 44.4 | 56.7 |
| Master F 105 | 28.0 | 40.1 | 52.5 |
| Minhybrid 405 | 27.7 | 42.4 | 60.3 |
| Reid National 110 A | 27.6 | 44.4 | 54.2 |
| Reid National 112 | 26.4 | 44.5 | 63.1 |
| Reid National 110 | 26.1 | 44.8 | 57.2 |
| Funk's G-7 | 25.8 | 44.8 | 56.1 |
| Reid National 95 | 25.4 | 40.2 | 62.2 |
| Turner T 20 (Exp.)* | 22.9 | 42.6 | 43.6 |

(Continued on page 16)

*Experimental entry

A difference between two entries of less than 9.0 bushels in yield and 5.7% in moisture content is not significant.

Table 7—(Con't) DISTRICT 6 (Brookings County): Results of Tests of Corn Hybrids and Varieties on the Farm of James Biggar, Brookings. (Harvested November 1, 1944)

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Moisture at harvest | Stand |
|----------------------------|---|---------------------|---------------|
| Moisture Group III | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> |
| Funk's G-38 | 40.3 | 45.5 | 69.2 |
| Iowealth S 2 (Exp.)* | 35.2 | 45.2 | 71.7 |
| Funk's G-31 | 34.7 | 49.5 | 68.9 |
| Funk's G-29 | 31.3 | 49.7 | 58.1 |
| Lowe 23 | 31.0 | 48.1 | 59.4 |
| Kingscrot KR 2 | 29.1 | 47.3 | 55.3 |
| Moews 15 | 28.8 | 45.6 | 60.0 |
| Iowealth 10 (Exp.)* | 25.1 | 52.8 | 57.5 |
| Lowe 15 | 24.3 | 49.5 | 51.1 |
| Reid National 104 | 21.1 | 47.7 | 50.3 |

*Experimental entry

A difference between two entries of less than 9.0 bushels in yield and 5.7% in moisture content is not significant.

Table 8—DISTRICT 7 (Kingsbury County): Results of Tests of Corn Hybrids and Varieties on Farm of Geo. Larson, Lake Preston. (Harvested Oct. 19, 1944)

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Moisture at harvest | Stand |
|-------------------------------------|---|---------------------|--------------------|
| Moisture Group I | | | |
| Reid National 110 | <i>bu.</i> 41.2 | <i>perct.</i> 23.0 | <i>perct.</i> 57.8 |
| Sokota 413 AA | 39.9 | 18.8 | 66.1 |
| Reid National 95 | 39.5 | 22.2 | 62.2 |
| Funk's G-179 (Exp.)* | 38.4 | 21.1 | 46.1 |
| Funk's G-38 (Exp.)* | 38.1 | 23.0 | 41.9 |
| Pioneer 379 | 37.6 | 21.6 | 53.1 |
| Funk's G-177 (Exp.)* | 37.4 | 23.3 | 56.4 |
| Kingscrot 337 (Exp.)* | 37.2 | 23.6 | 46.4 |
| Brookings 86 | 36.7 | 17.7 | 59.0 |
| Kingscrot KS 2 | 35.6 | 21.8 | 52.5 |
| Fulton Yellow Dent (Swope) | 34.9 | 20.6 | 52.5 |
| Kingscrot KS 6 | 34.3 | 23.2 | 54.4 |
| Sokota 417 | 34.2 | 17.4 | 58.1 |
| Pioneer 359 | 34.0 | 21.8 | 46.7 |
| Funk's G-1 | 33.1 | 23.0 | 44.7 |
| All-Dakota 626 | 32.6 | 20.9 | 53.3 |
| Master F 82 | 32.4 | 23.8 | 51.7 |
| Sokota 418 | 28.9 | 22.7 | 45.3 |
| Funk's G-178 (Exp.)* | 26.4 | 17.5 | 34.4 |
| Kingscrot KA4 | 24.8 | 16.7 | 63.1 |
| All-Dakota 610 | 23.2 | 16.7 | 38.9 |
| Minnesota 13 | 22.0 | 21.0 | 37.5 |
| Sokota 420 | 21.6 | 23.9 | 38.1 |
| Moisture Group II | | | |
| Pioneer 353 A | 44.9 | 25.9 | 67.2 |
| Early Murdock | 44.5 | 24.6 | 64.4 |
| Iowalth A | 40.1 | 26.4 | 56.9 |
| Kingscrot KR 2 | 39.5 | 27.2 | 54.4 |
| Iowalth S | 39.0 | 25.3 | 55.8 |
| Reid National 104 | 36.6 | 27.8 | 59.7 |
| Reid National 112 | 33.6 | 26.1 | 55.6 |
| Funk's G-12 | 33.2 | 28.3 | 44.4 |
| Minhybrid 405 | 31.7 | 24.6 | 47.2 |
| Reid National B-White (Exp.)* | 29.7 | 27.4 | 38.6 |
| Master F 105 | 29.7 | 24.8 | 46.1 |
| Kingscrot KN 1 | 26.2 | 25.7 | 38.9 |
| Moisture Group III | | | |
| Reid National 110 A | 43.5 | 30.3 | 61.4 |
| Funk's G-29 | 42.7 | 31.2 | 52.5 |
| Pioneer 322 | 42.5 | 29.2 | 52.5 |
| Moews 15 | 40.9 | 31.5 | 59.4 |
| Master F 101 | 36.9 | 27.7 | 47.2 |
| Funk's G-7 | 36.0 | 27.1 | 64.2 |
| Iowalth 11 (Exp.)* | 35.0 | 28.4 | 41.7 |
| Lowe 23 | 34.9 | 29.7 | 54.4 |
| Funk's G-31 | 34.9 | 30.5 | 46.7 |
| Lowe 15 | 23.0 | 29.5 | 46.9 |

*Experimental entry

A difference between two entries of less than 6.1 bushels in yield and 4.0% in moisture content is not significant.

Table 9—DISTRICT 8 (Codington County): Results of Tests of Corn Hybrids and Varieties on the Farm of M. H. Suttor, Watertown (Harvested October 20, 1944)

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | | Moisture at harvest ¹ | Stand |
|----------------------|---|---------------|----------------------------------|-------|
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> | |
| Funk's G-178 (Exp.)* | 44.6 | 33.8 | 65.6 | |
| Iowearth 3 (Exp.)* | 42.7 | 30.0 | 65.3 | |
| Funk's G-31 | 42.2 | 47.0 | 69.4 | |
| Sokota 417 | 42.1 | 32.0 | 70.8 | |
| Funk's G-179 (Exp.)* | 40.5 | 35.2 | 56.4 | |
| Sokota 420 | 40.4 | 27.5 | 61.9 | |
| Sokota 418 | 40.1 | 31.6 | 68.3 | |
| Pioneer 353A | 40.0 | 40.3 | 77.2 | |
| Funk's G-12 | 39.8 | 38.4 | 66.4 | |
| Master F 82 | 39.5 | 36.2 | 78.3 | |
| Pioneer 379 | 36.5 | 37.4 | 65.3 | |
| Reid National 95 | 36.3 | 31.5 | 61.4 | |
| Kingscrost KS 2 | 36.3 | 35.8 | 63.6 | |
| Minhybrid 603 | 36.1 | 35.4 | 71.9 | |
| Sokota 414 | 35.9 | 29.8 | 58.6 | |
| Funk's G-1 | 35.7 | 33.8 | 55.8 | |
| Funk's G-29 | 35.2 | 48.1 | 54.2 | |
| Kingscrost KS 6 | 35.2 | 35.0 | 57.2 | |
| Master F 101 | 35.0 | 54.6 | 70.8 | |
| Alta | 34.3 | 20.9 | 58.1 | |
| Pioneer 322 | 34.2 | 47.6 | 69.2 | |
| Reid National 110 | 33.2 | 37.8 | 70.3 | |
| Funk's G-177 (Exp.)* | 32.7 | 38.4 | 56.9 | |
| Kingscrost KE 1 | 32.6 | 24.2 | 65.8 | |
| Sokota 411 | 32.6 | 33.4 | 58.9 | |
| Jacques 1050 J | 31.4 | 37.2 | 69.4 | |
| Funk's G-183 (Exp.)* | 30.3 | 26.6 | 57.5 | |
| Reid National 104 | 29.8 | 41.7 | 57.5 | |
| Funk's G-7 | 29.7 | 42.4 | 55.0 | |
| Kingscrost KA 4 | 29.6 | 31.6 | 55.0 | |
| Kingscrost KE 2 | 29.2 | 24.3 | 58.6 | |
| Jacques 1001 J | 28.8 | 41.4 | 55.6 | |
| Funk's G-184 (Exp.)* | 28.4 | 43.4 | 60.0 | |
| Pioneer 359 | 27.5 | 45.0 | 56.7 | |
| Sokota 413 AA | 27.1 | 38.6 | 54.4 | |
| Iowearth S | 26.6 | 36.7 | 49.2 | |

*Experimental entry

¹A few moisture samples were destroyed due to an accident in the laboratory and insufficient replications for moisture content remained for statistical analysis.

A difference between two entries of less than 9.5 bushels in yield is not significant.

Table 10—DISTRICT 9 (Grant County): Results of Tests of Corn Hybrids and Varieties on the Farm of Chris Christian, Milbank. (Harvested October 28, 1944)

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Moisture at harvest ¹ | Stand |
|-------------------------------|---|--|---------------|
| Moisture Group I | | | |
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> |
| Funk's G-179 (Exp.)* | 48.0 | 20.2 | 76.3 |
| Master S-7 (Exp.)* | 45.0 | 24.6 | 81.0 |
| Pioneer 353 A | 43.0 | 22.2 | 81.0 |
| Kingscrot KS 6 | 42.1 | 19.4 | 75.0 |
| Iowearth 3 (Exp.)* | 42.1 | 17.8 | 73.3 |
| Sokota 418 | 41.7 | 19.0 | 73.7 |
| Funk's G-1 | 41.0 | 20.0 | 67.3 |
| Pioneer 322 | 40.9 | 26.0 | 66.3 |
| Funk's G-184 (Exp.)* | 40.7 | 17.6 | 69.3 |
| Master F 82 | 40.0 | 19.0 | 77.0 |
| Funk's G-12 | 39.9 | 23.6 | 69.7 |
| Funk's G-178 (Exp.)* | 39.1 | 19.2 | 60.0 |
| Reid National 104 | 37.7 | 22.1 | 65.3 |
| Sokota 420 | 37.7 | 17.4 | 69.0 |
| Early Murdock | 37.6 | 22.3 | 70.0 |
| Sokota 414 | 37.5 | 16.0 | 70.7 |
| Jacques 1050 J | 37.1 | 19.0 | 73.0 |
| Pioneer 379 | 37.0 | 18.0 | 59.0 |
| Iowearth S | 37.0 | 21.0 | 67.7 |
| Kingscrot KS 6 | 37.0 | 21.8 | 56.7 |
| Pioneer 359 | 36.9 | 19.0 | 65.7 |
| Minhybrid 603 | 36.8 | 17.3 | 66.0 |
| Funk's G-177 (Exp.)* | 36.4 | 19.7 | 55.0 |
| Reid National 95 | 35.8 | 19.4 | 73.0 |
| Sokota 417 | 35.8 | 18.0 | 70.3 |
| Jacques 1001 J | 35.5 | 19.7 | 71.0 |
| Kingscrot KE 1 | 34.4 | 15.6 | 69.7 |
| Funk's G-183 (Exp.)* | 34.3 | 19.7 | 62.7 |
| Reid National 110 | 33.5 | 25.4 | 79.0 |
| Reid National 88 (Exp.)* | 32.1 | 13.2 | 65.0 |
| Kingscrot KE 2 | 31.7 | 13.8 | 71.3 |
| Reid National 90 (Exp.)* | 31.7 | 18.2 | 60.7 |
| Sokota 411 | 31.3 | 17.7 | 55.7 |
| Reid National A White (Exp.)* | 31.3 | 20.8 | 63.3 |
| Sokota 413 AA | 30.8 | 18.1 | 55.0 |
| Kingscrot KA 4 | 30.2 | 15.4 | 60.3 |
| Funk's G-7 | 29.7 | 25.2 | 56.3 |
| Minnesota 13 | 23.1 | 21.2 | 59.3 |
| Moisture Group II | | | |
| Funk's G-29 | 44.3 | 28.2 | 64.7 |
| Master F 101 | 42.2 | 26.1 | 77.3 |
| Funk's G-31 | 35.8 | 26.6 | 70.0 |

*Experimental entry

A difference between two entries of less than 3.4 bushels in yield and 4.7% in moisture content is not significant.

Table 11—SECTION A: Average Yield (Bushels) and Moisture Content (Percentage) of Hybrids and Varieties Entered in Districts 1 and 3 in 1944

| Hybrid or variety | Yield per acre | | | Moisture content of grain at harvest | | |
|-------------------------------|----------------|------------|-----------------|--------------------------------------|------------|-----------------|
| | District 1 | District 3 | Section Average | District 1 | District 3 | Section Average |
| | Clay | Hutchinson | | Clay | Hutchinson | |
| Funk's G-68 (Exp.)* | 99.3 | 64.6 | 82.0 | 24.2 | 25.0 | 24.6 |
| Funk's G-114 | 86.8 | 71.1 | 79.0 | 26.6 | 28.3 | 27.5 |
| Jacques 1157 J | 100.8 | 55.3 | 78.1 | 22.0 | 30.0 | 26.0 |
| Lowe 14 | 94.6 | 58.7 | 76.7 | 24.8 | 30.0 | 27.4 |
| Reid National 115 | 103.5 | 49.6 | 76.6 | 20.0 | 34.0 | 27.2 |
| Pioneer 353 A | 92.0 | 60.0 | 76.0 | 20.1 | 22.7 | 21.4 |
| Jacques 1205 J | 98.1 | 53.2 | 75.7 | 17.4 | 27.8 | 22.6 |
| Iowearth AF 11 | 96.7 | 53.7 | 75.2 | 20.0 | 22.2 | 21.1 |
| Green Acres 395 | 98.0 | 51.9 | 75.0 | 26.3 | 30.5 | 28.4 |
| Master F 106 | 97.4 | 52.5 | 75.0 | 24.1 | 27.4 | 25.8 |
| Funk's G-66 | 80.8 | 67.0 | 73.9 | 28.0 | 30.8 | 29.4 |
| Kingscrot KY | 104.7 | 42.8 | 73.8 | 22.6 | 30.5 | 26.6 |
| Turner S 56 | 103.8 | 43.6 | 73.7 | 24.0 | 28.5 | 26.3 |
| Funk's G-37 | 89.2 | 54.0 | 71.6 | 24.0 | 30.0 | 27.0 |
| Reid National 118-R | 87.5 | 55.5 | 71.5 | 23.2 | 27.5 | 25.4 |
| Kingscrot K-3 | 102.1 | 40.5 | 71.3 | 22.6 | 30.7 | 26.7 |
| Funk's G-51 (Exp.)* | 85.3 | 55.5 | 70.4 | 23.5 | 24.5 | 24.0 |
| Green Acres 196 | 88.2 | 51.4 | 69.8 | 25.6 | 35.0 | 30.3 |
| Standard 615 | 91.1 | 48.3 | 69.7 | 25.0 | 28.0 | 26.5 |
| Standard 405 | 74.5 | 64.4 | 69.5 | 23.2 | 26.8 | 25.0 |
| Moews 14 | 85.9 | 52.9 | 69.4 | 23.8 | 29.1 | 26.5 |
| Turner S 52 | 97.3 | 41.3 | 69.3 | 24.2 | 29.1 | 26.7 |
| Master S-7 (Exp.)* | 84.9 | 53.7 | 69.3 | 24.8 | 23.2 | 24.0 |
| Moews 15 | 89.1 | 47.8 | 68.5 | 21.4 | 30.8 | 26.1 |
| Kingscrot KY 2 | 93.7 | 42.8 | 68.3 | 26.2 | 32.5 | 29.4 |
| Master F 101 | 95.0 | 41.5 | 68.3 | 21.0 | 24.3 | 22.7 |
| Pioneer 331 | 93.2 | 43.1 | 68.2 | 23.2 | 31.0 | 27.1 |
| Turner S 51 A | 91.5 | 42.6 | 67.1 | 26.2 | 31.5 | 28.9 |
| Funk's G-57 | 80.8 | 52.9 | 66.9 | 25.8 | 30.6 | 28.2 |
| Reid National 117-R | 86.1 | 46.5 | 66.3 | 27.5 | 23.5 | 25.5 |
| Funk's G-29 | 72.6 | 59.4 | 66.0 | 26.6 | 33.2 | 29.9 |
| Kingscrot KR 2 | 91.8 | 38.7 | 65.3 | 22.2 | 28.3 | 25.3 |
| Iowearth BC 4 | 81.6 | 48.8 | 65.2 | 27.5 | 29.1 | 28.3 |
| Iowearth AQ | 77.4 | 52.7 | 65.1 | 28.7 | 28.3 | 28.5 |
| Funk's G-550 W | 77.5 | 51.4 | 64.5 | 22.0 | 21.0 | 21.5 |
| Lowe 15 | 84.7 | 43.9 | 64.3 | 20.8 | 32.0 | 26.4 |
| Lowe 520 | 83.3 | 44.6 | 64.0 | 29.8 | 37.1 | 33.5 |
| Iowearth 16 | 76.8 | 50.9 | 63.9 | 23.7 | 27.9 | 25.8 |
| Funk's G-37 | 66.8 | 57.9 | 62.4 | 23.4 | 34.0 | 28.7 |
| Wimple's Yellow Dent | 81.2 | 38.9 | 60.0 | 19.0 | 31.7 | 25.4 |
| Lowe 52 | 72.3 | 46.2 | 59.3 | 21.7 | 25.4 | 23.6 |
| Turner S 55 | 76.7 | 41.8 | 59.3 | 28.0 | 38.7 | 33.4 |
| Green Acres 113 | 70.9 | 47.5 | 59.2 | 25.6 | 28.2 | 26.9 |
| Sokota 417 | 68.1 | 45.9 | 57.0 | 16.6 | 15.7 | 16.2 |
| Sokota 413 AA | 62.5 | 45.7 | 54.1 | 18.0 | 16.4 | 17.2 |
| Sokota 418 | 59.4 | 46.5 | 53.0 | 18.5 | 17.8 | 18.2 |
| Sokota 420 | 59.4 | 38.7 | 49.1 | 16.8 | 17.5 | 17.2 |
| Minimum level of significance | 22.0 | 22.5 | 22.2 | 4.4 | | |

*Experimental entry

A difference between any two entries of less than the figures shown in the bottom line for each column is not significant.

Table 12—SECTION C: Average Yield (Bushels) and Moisture Content (Percentage) of Hybrids and Varieties Entered in Districts 5, 6, and 7 in 1944.

| Hybrid or variety | Yield per acre | | | | Moisture content of grain at harvest | | | |
|--|---------------------------------|---------------------------------|---------------------------------|--------------------|--------------------------------------|---------------------------------|---------------------------------|--------------------|
| | District 5 Minne- haha | District 6 Brook- ings | District 7 Kings- bury | Section Average | District 5 Minne- haha | District 6 Brook- ings | District 7 Kings- bury | Section Average |
| Funk's G-38 (Exp.)* | 69.61 | 40.28 | 38.07 | 49.32 | 30.3 | 45.5 | 23.0 | 32.93 |
| Iowealth 11 (Exp.)* | 69.03 | 43.11 | 35.04 | 49.06 | 28.8 | 35.2 | 28.4 | 30.80 |
| Funk's G-29 | 70.18 | 31.30 | 42.69 | 48.06 | 32.7 | 49.7 | 31.2 | 37.87 |
| Master F-101 | 70.05 | 35.30 | 36.91 | 47.42 | 29.9 | 44.2 | 27.7 | 33.93 |
| Pioneer 322 | 65.22 | 32.65 | 42.54 | 46.80 | 27.7 | 44.0 | 29.2 | 33.63 |
| Iowealth A | 62.68 | 33.09 | 40.05 | 45.27 | 27.3 | 42.2 | 26.4 | 31.97 |
| Pioneer 353A | 60.47 | 27.69 | 44.85 | 44.34 | 27.4 | 35.5 | 25.9 | 29.60 |
| Kingscrot KS 6 | 65.56 | 32.03 | 34.31 | 43.97 | 25.9 | 29.0 | 23.2 | 26.03 |
| Funk's G-179 (Exp.)* | 61.09 | 32.44 | 38.36 | 43.96 | 26.3 | 33.8 | 21.1 | 27.07 |
| Funk's G-31 | 62.18 | 34.67 | 34.91 | 43.92 | 30.9 | 49.5 | 30.5 | 36.97 |
| Funk's G-12 | 65.66 | 31.64 | 33.22 | 43.51 | 29.8 | 44.4 | 28.3 | 34.17 |
| Reid National 110A | 59.46 | 27.61 | 43.45 | 43.51 | 29.1 | 44.4 | 30.3 | 34.60 |
| Lowe 23 | 64.29 | 30.96 | 34.91 | 43.39 | 31.1 | 48.1 | 29.7 | 36.30 |
| Moews 15 | 59.90 | 28.81 | 40.88 | 43.20 | 29.5 | 45.6 | 31.5 | 35.53 |
| Kingscrot KR 2 | 61.02 | 29.09 | 39.50 | 43.20 | 30.2 | 47.3 | 27.2 | 34.90 |
| Kingscrot 337 (Exp.)* | 62.60 | 28.83 | 37.22 | 42.88 | 27.4 | 37.9 | 23.6 | 29.63 |
| Funk's G-1 | 64.44 | 30.47 | 33.09 | 42.67 | 26.2 | 33.9 | 23.0 | 27.70 |
| Reid National 110 | 60.57 | 26.13 | 41.24 | 42.65 | 26.6 | 44.8 | 23.0 | 31.47 |
| Kingscrot KS 2 | 57.41 | 32.65 | 35.58 | 41.88 | 23.6 | 26.6 | 21.8 | 24.00 |
| Funk's G-177 (Exp.)* | 58.65 | 28.89 | 37.40 | 41.65 | 25.5 | 32.7 | 23.3 | 27.17 |
| Master F-82 | 57.10 | 34.98 | 32.39 | 41.49 | 27.1 | 30.0 | 23.8 | 26.97 |
| Funk's G-7 | 61.33 | 25.82 | 35.97 | 41.04 | 27.4 | 44.8 | 27.1 | 33.10 |
| Reid National 95 | 58.00 | 25.38 | 39.50 | 40.96 | 25.5 | 40.2 | 22.2 | 29.30 |
| Master F-105 | 64.88 | 28.00 | 29.66 | 40.85 | 28.0 | 40.1 | 24.8 | 30.97 |
| Iowealth S | 54.76 | 28.29 | 39.03 | 40.69 | 26.7 | 34.5 | 25.3 | 28.83 |
| Funk's G-178 (Exp.)* | 63.64 | 29.85 | 26.39 | 39.96 | 25.5 | 29.7 | 17.5 | 24.23 |
| Pioneer 359 | 53.90 | 29.82 | 33.95 | 39.22 | 23.7 | 38.1 | 21.8 | 27.87 |
| Minhybrid 405 | 56.89 | 27.67 | 31.74 | 38.77 | 26.7 | 42.4 | 24.6 | 31.23 |
| Reid National 112 | 55.98 | 26.42 | 33.56 | 38.65 | 27.7 | 44.5 | 26.1 | 32.77 |
| Pioneer 379 | 51.23 | 25.41 | 37.55 | 38.06 | 24.5 | 32.7 | 21.6 | 26.27 |
| Reid National 104 | 54.53 | 21.10 | 36.59 | 37.41 | 28.1 | 47.7 | 27.8 | 34.53 |
| Sokota 418 | 47.26 | 34.36 | 28.91 | 36.84 | 24.8 | 27.0 | 22.7 | 24.83 |
| Sokota 417 | 43.73 | 30.91 | 34.18 | 36.27 | 23.0 | 24.5 | 17.4 | 21.63 |
| Lowe 15 | 61.25 | 24.29 | 23.02 | 36.19 | 30.0 | 49.5 | 29.5 | 36.33 |
| Sokota 413 AA | 41.34 | 27.12 | 39.89 | 36.12 | 22.5 | 29.9 | 18.8 | 23.73 |
| Early Murdock | 35.32 | 27.48 | 44.51 | 35.77 | 26.8 | 36.4 | 24.6 | 29.27 |
| Kingscrot KN1 | 51.59 | 27.30 | 26.19 | 35.03 | 26.9 | 31.4 | 25.7 | 28.00 |
| Sokota 420 | 49.34 | 23.15 | 21.64 | 31.38 | 22.8 | 35.7 | 23.9 | 27.47 |
| Kingscrot KA4 | 45.44 | 23.05 | 24.76 | 31.08 | 20.7 | 23.7 | 16.7 | 20.37 |
| Minimum level of significance | 13.5 | 9.0 | 6.1 | 12.3 | 2.5 | 5.7 | 4.0 | 3.3 |

*Experimental entry

A difference between any two entries of less than the figures shown in the bottom line for each column is not significant.

Table 13—SECTION D: Average Yield (Bushels) and Moisture Content (Percentage) of Hybrids and Varieties Entered in Districts 8 and 9 in 1944.

| Hybrid or variety | Yield per acre | | | Moisture content of grain at harvest | | |
|-------------------------------|----------------|------------|-----------------|--------------------------------------|------------|-----------------|
| | District 8 | District 9 | Section Average | District 8 | District 9 | Section Average |
| | Codington | Grant | | Codington | Grant | |
| Funk's G-179 (Exp.)* | 40.49 | 47.96 | 44.22 | 35.8 | 20.2 | 27.70 |
| Iowearth 3 (Exp.)* | 42.67 | 42.10 | 42.38 | 30.0 | 17.8 | 23.90 |
| Funk's G-178 (Exp.)* | 44.64 | 39.14 | 41.89 | 33.8 | 19.2 | 26.50 |
| Pioneer 353 A | 39.97 | 42.49 | 41.23 | 40.3 | 22.2 | 31.25 |
| Sokota 418 | 40.05 | 41.68 | 40.86 | 31.6 | 19.0 | 25.30 |
| Funk's G-12 | 39.81 | 39.92 | 39.86 | 38.4 | 23.6 | 31.00 |
| Funk's G-29 | 35.22 | 44.28 | 39.75 | 48.1 | 28.2 | 38.15 |
| Master F-82 | 39.50 | 39.99 | 39.74 | 36.2 | 19.0 | 27.60 |
| Kingscrot KS 2 | 36.26 | 42.10 | 39.18 | 35.8 | 19.4 | 27.60 |
| Funk's G-31 | 42.23 | 35.84 | 39.04 | 47.0 | 26.6 | 36.80 |
| Sokota 420 | 40.36 | 37.66 | 39.01 | 27.5 | 17.4 | 22.45 |
| Sokota 417 | 42.12 | 35.79 | 38.96 | 32.0 | 18.0 | 25.00 |
| Master F 101 | 34.96 | 42.17 | 38.56 | 54.6 | 26.1 | 40.35 |
| Funk's G-1 | 35.66 | 40.98 | 38.32 | 33.8 | 20.0 | 26.90 |
| Pioneer 322 | 34.15 | 40.93 | 37.54 | 47.6 | 26.0 | 36.80 |
| Pioneer 379 | 36.49 | 37.01 | 36.75 | 37.4 | 18.0 | 27.70 |
| Sokota 414 | 35.87 | 37.53 | 36.70 | 29.8 | 16.0 | 22.90 |
| Minhybrid 603 | 36.10 | 36.75 | 36.42 | 35.4 | 17.3 | 26.35 |
| Reid National 95 | 36.33 | 35.84 | 36.08 | 31.5 | 19.4 | 25.45 |
| Kingscrot KS 6 | 35.17 | 36.96 | 36.06 | 35.0 | 21.8 | 28.40 |
| Funk's G-177 (Exp.)* | 32.70 | 36.41 | 34.56 | 38.4 | 19.7 | 29.05 |
| Funk's G-184 (Exp.)* | 28.37 | 40.72 | 34.54 | 43.4 | 17.6 | 30.50 |
| Jacques 1050 J | 31.35 | 37.09 | 34.22 | 37.2 | 19.0 | 28.10 |
| Reid National 104 | 29.82 | 37.71 | 33.76 | 41.7 | 22.1 | 31.90 |
| Kingscrot KE1 | 32.62 | 34.44 | 33.53 | 24.2 | 15.6 | 19.90 |
| Reid National 110 | 33.17 | 33.51 | 33.34 | 37.8 | 25.4 | 31.60 |
| Funk's G-183 (Exp.)* | 30.29 | 34.26 | 32.28 | 26.6 | 19.7 | 23.15 |
| Pioneer 359 | 27.51 | 36.85 | 32.18 | 45.0 | 19.0 | 32.00 |
| Jacques 1001 J | 28.81 | 35.45 | 32.13 | 41.4 | 19.7 | 30.55 |
| Sokota 411 | 32.60 | 31.27 | 31.94 | 33.4 | 17.7 | 25.55 |
| Iowearth S | 26.63 | 36.98 | 31.80 | 36.7 | 21.0 | 28.85 |
| Kingscrot KE2 | 29.22 | 31.74 | 30.48 | 24.3 | 13.8 | 19.05 |
| Kingscrot KA4 | 29.59 | 30.18 | 29.88 | 31.6 | 15.4 | 23.50 |
| Funk's G-7 | 29.66 | 29.69 | 29.68 | 42.4 | 25.2 | 33.80 |
| Sokota 413 AA | 27.12 | 30.78 | 28.95 | 38.6 | 18.1 | 28.35 |
| Minimum level of significance | 9.5 | 3.4 | 4.6 | | 4.7 | |

*Experimental entry

A difference between any two entries of less than the figures shown in the bottom line for each column is not significant.

Table 14—DISTRICT 1 (Clay County): Yield and Moisture Content of Hybrids and Varieties Grown for Two and Three Years

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Percent of Wimple's Yellow Dent | Moisture at harvest |
|--|---|---------------------------------------|------------------------|
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> |
| Three-Year Averages 1941-42; 1944 | | | |
| Kingscrot KY | 78.5 | 121.0 | 19.9 |
| Iowearth AQ | 72.2 | 111.2 | 23.5 |
| Funk's G-114 | 70.5 | 108.6 | 23.0 |
| Kingscrot KR 2 | 70.5 | 108.6 | 19.5 |
| Wimple's Yellow Dent | 64.9 | 100.0 | 17.5 |
| Reid Yellow Dent | 56.4 | 86.9 | 22.2 |
| Two-Year Average 1941 and 1944 | | | |
| Turner S 55 | 71.4 | 104.4 | 25.3 |
| Wimple's Yellow Dent | 68.4 | 100.0 | 17.5 |
| Two-Year Averages 1942 and 1944 | | | |
| Turner S 56 | 86.3 | 124.0 | 21.6 |
| Jacques 1205 J | 83.8 | 120.4 | 18.4 |
| Green Acres 392 (Exp.)* | 81.9 | 117.7 | 24.6 |
| Master F 106 | 79.8 | 114.7 | 21.6 |
| Reid National 118 R | 74.2 | 106.6 | 22.0 |
| Iowearth 16 | 73.4 | 105.5 | 20.3 |
| Turner S 52 | 72.1 | 103.6 | 21.4 |
| Wimple's Yellow Dent | 69.6 | 100.0 | 18.3 |
| Green Acres 113 | 66.2 | 95.1 | 22.6 |
| Green Acres 41 (Exp.)* | 65.1 | 93.5 | 22.8 |

*Experimental entry

The minimum level of significance for yield for three years is 6.2 bushels and for moisture 2.8 per cent.

Table 15—DISTRICT 3 (Hutchinson County): Yield and Moisture Content of Hybrids and Varieties Grown for Two and Three Years

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Percent of Wimple's Yellow Dent | Moisture at harvest |
|--|---|---------------------------------|---------------------|
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> |
| Three-Year Averages 1942-44 | | | |
| Pioneer 353 A | 43.6 | 158.0 | 18.8 |
| Turner S 52 | 42.5 | 156.3 | 21.8 |
| Iowearth 16 | 40.9 | 150.4 | 21.6 |
| Turner S 56 | 40.8 | 150.0 | 23.6 |
| Iowearth AQ | 39.7 | 146.0 | 24.3 |
| Reid National 118 R | 36.6 | 134.6 | 22.8 |
| Kingscrot KY | 36.0 | 132.4 | 22.3 |
| Kingscrot KR 2 | 35.5 | 130.5 | 22.3 |
| Silver King | 34.6 | 127.2 | 19.2 |
| Wimple's Yellow Dent | 27.2 | 100.0 | 22.4 |
| Two-Year Averages 1942 and 1944 | | | |
| Funk's G-114 | 55.7 | 167.3 | 25.9 |
| Jacques 1205 J | 53.5 | 160.6 | 25.8 |
| Green Acres 113 | 46.4 | 139.3 | 25.7 |
| Wimple's Yellow Dent | 33.3 | 100.0 | 26.8 |
| Two-Year Averages 1943-44 | | | |
| Funk's G-66 | 45.3 | 167.8 | 25.0 |
| Funk's G-29 | 43.8 | 162.2 | 25.2 |
| Master F106 | 40.3 | 149.2 | 22.3 |
| Funk's G-550 W | 39.3 | 145.6 | 18.7 |
| Lowe 14 | 39.3 | 145.6 | 26.6 |
| Iowearth AF 11 | 38.2 | 141.5 | 19.0 |
| Reid National 115 | 37.9 | 140.4 | 24.8 |
| Moews 15 | 36.7 | 135.9 | 23.0 |
| Lowe 520 | 36.1 | 133.7 | 28.6 |
| Pioneer 331 | 36.0 | 133.3 | 23.2 |
| Turner S 55 | 35.5 | 131.5 | 29.6 |
| Lowe 15 | 35.2 | 130.4 | 23.9 |
| Reid National 117R | 33.2 | 123.0 | 20.5 |
| Master F 101 | 29.0 | 107.4 | 20.4 |
| Wimple's Yellow Dent | 27.0 | 100.0 | 22.6 |

The minimum level of significance for yield for three years is 5.6 bushels and for moisture for two years is 1.7 per cent.

Table 16—DISTRICT 4 (Sanborn County): Yield and Moisture Content of Hybrids and Varieties Grown for Two and Three Years

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Percent of Fulton Yellow Dent | Moisture at harvest ¹ |
|------------------------------------|---|-------------------------------|----------------------------------|
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> |
| Three-Year Averages 1942-44 | | | |
| Silver King | 28.9 | 120.4 | 22.0 |
| Funk's G-35 | 26.6 | 110.8 | 19.8 |
| Funk's G-31 | 26.1 | 108.8 | 25.0 |
| Kingscrosst KS 6 | 24.1 | 100.4 | 19.6 |
| Fulton Yellow Dent | 24.0 | 100.0 | 21.7 |
| Jacques 1104 J | 23.3 | 97.1 | 22.1 |
| Two-Year Averages 1943-44 | | | |
| Kingscrosst KR 2 | 16.7 | 116.0 | 22.6 |
| Funk's G-179 | 16.3 | 113.2 | 20.5 |
| Master F 101 | 16.3 | 113.2 | 20.7 |
| Master F 106 | 16.0 | 111.1 | 25.1 |
| Funk's G-550W | 14.5 | 100.7 | 17.5 |
| Funk's G-178 (Exp.)* | 14.4 | 100.0 | 17.9 |
| Fulton Yellow Dent | 14.4 | 100.0 | 18.2 |
| Iowealth WI 2 (Exp.)* | 14.3 | 99.3 | 16.8 |
| Funk's G-1 | 14.1 | 97.9 | 17.3 |
| Funk's G-3 | 12.8 | 88.9 | 18.2 |
| Funk's G-29 | 12.0 | 83.3 | 24.6 |
| Funk's G-12 | 10.1 | 70.1 | 23.6 |

*Experimental entry

¹No moisture contents were computed in 1943. During 1943 the yields were so low no moisture samples were taken.

The minimum level of significance for yield for three years is 2.4 bushels and for moisture content for two years is 1.5 per cent.

Table 17—DISTRICT 5 (Minnehaha County): Yields and Moisture Content of Hybrids and Varieties Grown for Two and Three Years

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Percent of Golden Jewel variety | Moisture at harvest |
|--|---|---------------------------------|---------------------|
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> |
| Three-year Averages 1942-44 | | | |
| Funk's G-29 | 64.9 | 122.0 | 28.0 |
| Pioneer 353A | 60.7 | 114.1 | 23.7 |
| Master F101 | 59.7 | 112.2 | 26.0 |
| Kingscrot KR2 | 58.3 | 109.6 | 26.6 |
| Funk's G-12 | 58.2 | 109.4 | 27.1 |
| Master F105 | 57.5 | 108.1 | 25.3 |
| Reid National 110 | 56.5 | 106.2 | 24.4 |
| Iowearth S | 55.9 | 105.1 | 25.0 |
| Kingscrot KS6 | 55.5 | 104.3 | 23.5 |
| Golden Jewel | 53.2 | 100.0 | 25.0 |
| Kingscrot KNI | 52.6 | 99.0 | 22.8 |
| Wimple's Yellow Dent | 47.8 | 89.8 | 26.1 |
| Two-Year Averages 1942 and 1944 | | | |
| Pioneer 322 | 63.2 | 106.9 | 28.1 |
| Iowearth A | 59.1 | 100.0 | 27.7 |
| Golden Jewel | 59.1 | 100.0 | 26.4 |
| Reid National 110 A | 57.7 | 97.6 | 27.4 |
| Wimple's Yellow Dent | 51.6 | 87.3 | 26.6 |
| Two-Year Averages 1943-44 | | | |
| Iowearth 11 (Exp.)* | 61.7 | 129.9 | 25.6 |
| Funk's G-178 (Exp.)* | 58.9 | 123.7 | 23.7 |
| Iowearth 10 (Exp.)* | 58.5 | 122.9 | 25.0 |
| Funk's G-179 (Exp.)* | 57.0 | 119.7 | 24.0 |
| Master F82 | 56.9 | 119.5 | 23.7 |
| Funk's G-1 | 54.0 | 113.4 | 23.7 |
| Reid National 95 | 53.8 | 113.0 | 22.3 |
| Golden Jewel | 47.6 | 100.0 | 25.3 |
| Sokota 417 | 45.8 | 96.2 | 19.1 |
| Wimple's Yellow Dent | 44.5 | 93.5 | 26.1 |
| Early Murdock | 35.3 | 74.2 | 24.8 |

*Experimental entry

The minimum level of significance for yield for three years is 4.9 bushels and for moisture content is 1.9 per cent.

Table 18—DISTRICT 6 (Brookings County): Yield and Moisture Content of Hybrids and Varieties Grown for Two and Three Years

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Percent of Fulton Yellow Dent | Moisture at harvest |
|--|---|-------------------------------|---------------------|
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> |
| Three-Year Averages 1942-44 | | | |
| Funk's G-12 | 49.8 | 112.2 | 34.9 |
| Master F 82 | 46.3 | 104.3 | 24.6 |
| Kingscrot KS 6 | 45.6 | 102.7 | 25.0 |
| Fulton Yellow Dent | 44.4 | 100.0 | 25.9 |
| Iowearth S | 43.4 | 97.7 | 28.7 |
| Master F 105 | 43.1 | 97.1 | 30.1 |
| Pioneer 353 A | 42.5 | 95.7 | 28.8 |
| Reid National 110 | 42.5 | 95.7 | 31.7 |
| Kingscrot KR 2 | 41.8 | 94.1 | 37.0 |
| Kingscrot KN 1 | 40.6 | 91.4 | 28.5 |
| Brookings 86 | 33.8 | 76.1 | 24.6 |
| Two-Year Averages 1942 and 1944 | | | |
| Fulton Yellow Dent | 41.7 | 100.0 | 28.6 |
| Iowearth A | 34.8 | 83.5 | 38.4 |
| Reid National 110 A | 33.3 | 79.9 | 43.4 |
| Pioneer 322 | 33.2 | 79.6 | 41.1 |
| Reid National 112 | 32.2 | 77.2 | 39.0 |
| Two-Year Averages 1943 and 1944 | | | |
| Funk's G-178 (Exp.)* | 47.5 | 119.3 | 24.1 |
| Funk's G-29 | 47.0 | 118.1 | 36.2 |
| Sokota 417 | 42.8 | 107.5 | 21.0 |
| Funk's G-1 | 42.6 | 107.0 | 25.0 |
| Master F 101 | 42.1 | 105.8 | 32.8 |
| Funk's G-179 (Exp.)* | 41.7 | 104.8 | 27.0 |
| Reid National 95 | 40.5 | 101.8 | 29.1 |
| Fulton Yellow Dent | 39.8 | 100.0 | 29.2 |

*Experimental entry

The minimum level of significance for yield for three years is 4.0 bushels and for moisture is 6.0 per cent.

Table 19—DISTRICT 7 (Kingsbury County): Yield and Moisture Content of Hybrids and Varieties Grown for Two Years.

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Percent of Early Murdock | Moisture at harvest |
|----------------------------------|---|--------------------------------|------------------------|
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> |
| Two-Year Averages 1943-44 | | | |
| Funk's G-29 | 32.2 | 111.0 | 25.8 |
| Funk's G-179 (Exp.)* | 30.2 | 104.1 | 18.9 |
| Pioneer 353 A | 30.1 | 103.8 | 20.6 |
| Reid National 110 A | 29.1 | 100.3 | 24.8 |
| Early Murdock | 29.0 | 100.0 | 22.2 |
| Iowwealth S | 28.5 | 98.3 | 20.8 |
| Reid National 110 | 28.5 | 98.3 | 18.8 |
| Kingscrosst KR 2 | 27.3 | 94.1 | 23.0 |
| Reid National 95 | 26.8 | 92.4 | 18.0 |
| Fulton Yellow Dent | 26.0 | 89.7 | 17.9 |
| Sokota 413 AA | 26.0 | 89.7 | 16.2 |
| Master F 101 | 25.9 | 89.3 | 22.4 |
| Funk's G-12 | 24.8 | 85.5 | 22.5 |
| Kingscrosst KS 6 | 24.8 | 85.5 | 20.0 |
| Master F 82 | 24.5 | 84.5 | 18.4 |
| Funk's G-178 (Exp.)* | 23.7 | 81.7 | 16.0 |
| Funk's G-1 | 23.6 | 81.4 | 19.7 |
| Sokota 417 | 23.5 | 81.0 | 14.8 |
| Master F 105 | 21.8 | 75.2 | 22.4 |
| Kingscrosst KN 1 | 19.9 | 68.6 | 21.2 |

*Experimental entry

The minimum level of significance for yield for two years is 2.7 bushels.

Table 20—DISTRICT 8 (Codington County): Yield and Moisture Content of Hybrids and Varieties Grown for Two Years

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Percent of Alta | Moisture at harvest |
|--|---|--------------------|------------------------|
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> |
| Two-Year Averages 1942 and 1944 | | | |
| Minhybrid 603 | 26.3 | 104.8 | 35.2 |
| Funk's G-12 | 25.8 | 106.4 | 51.5 |
| Alta | 25.1 | 100.0 | 22.4 |
| Kingscrot KS 6 | 16.4 | 66.3 | 36.8 |
| Sokota 411 | 15.5 | 61.8 | 31.7 |
| Funk's G-31 | 15.3 | 61.0 | 51.5 |
| Kingscrot KS 2 | 14.7 | 58.6 | 38.2 |
| Reid National 110 | 13.4 | 53.4 | 41.2 |
| Pioneer 353 A | 12.9 | 51.4 | 44.8 |
| Jacques 1001 J | 12.5 | 49.8 | 43.2 |
| Pioneer 322 | 11.4 | 45.4 | 50.4 |
| Two-Year Averages 1941 and 1944 | | | |
| Alta | 29.2 | 100.0 | 21.3 |
| Funk's G-1 | 21.2 | 72.6 | 28.6 |

The minimum level of significance for yield for two years is 2.4 bushels.

Table 21—DISTRICT 9 (Grant County): Yield and Moisture Content of Hybrids and Varieties Grown for Two and Three Years

| Hybrid or variety | Acre yield of ear corn with 15% moisture in grain | Percent of Early Murdock | Moisture at harvest |
|--|---|--------------------------------|------------------------|
| | <i>bu.</i> | <i>perct.</i> | <i>perct.</i> |
| Three-Year Averages 1941-42; 1944 | | | |
| Master F 101 | 51.9 | 108.4 | 32.3 |
| Pioneer 353 A | 51.1 | 106.7 | 29.7 |
| Pioneer 322 | 49.9 | 104.2 | 35.0 |
| Early Murdock | 47.9 | 100.0 | 27.9 |
| Funk's G-12 | 44.1 | 92.1 | 33.8 |
| Minnesota 13 | 36.7 | 76.6 | 26.2 |
| Two-Year Averages 1941 and 1944 | | | |
| Early Murdock | 49.0 | 100.0 | 30.6 |
| Funk's G-1 | 46.9 | 95.7 | 20.3 |
| Reid National 95 | 41.4 | 84.5 | 19.6 |
| Iowalth S | 37.0 | 75.5 | 22.0 |
| Two-Year Averages 1942 and 1944 | | | |
| Sokota 418 | 44.0 | 105.5 | 25.2 |
| Kingscrot KS 2 | 42.1 | 101.0 | 28.8 |
| Early Murdock | 41.7 | 100.0 | 30.6 |
| Minhybrid 603 | 41.6 | 99.8 | 24.7 |
| Kingscrot KS 6 | 39.6 | 95.0 | 31.0 |
| Master F 82 | 39.0 | 93.5 | 29.8 |
| Funk's G-31 | 38.3 | 91.8 | 42.1 |
| Sokota 411 | 37.6 | 90.2 | 22.6 |
| Sokota 417 | 37.3 | 89.4 | 25.0 |
| Jacques 1001 J | 36.5 | 87.5 | 30.7 |
| Reid National 110 | 36.3 | 87.1 | 32.8 |

The minimum level of significance for three years for yield is 4.2 bushels and for two years for moisture content is 4.6 per cent.