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Historical Doc

**BULLETIN 325** 

## AGRICULTURAL EXPERIMENT STATION

KANSAS STATE COLLEGE OF AGRICULTURE AND APPLIED SCIENCE

DEPARTMENT OF AGRONOMY

in cooperation with

DIVISION OF CEREAL CROPS AND DISEASES BUREAU OF PLANT INDUSTRY, SOILS, AND AGRICULTURAL ENGINEERING

> Agricultural Research Administration U. S. Department of Agriculture

## KANSAS CORN TESTS, 1944



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1945



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## SUMMARY

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This bulletin presents the results of corn tests conducted in Kansas during 1944 and summarizes the results of tests conducted during the past six years. The state has been divided into seven districts on the basis of soil, rainfall, and length of growing season. The 1944 Kansas corn testing program, outlined in Figure 1, included open-pollinated varieties and hybrids developed and distributed by federal, state and commercial agencies.

The entries in the 1944 trials together with the names and addresses of the commercial companies entering hybrids in the tests are reported in Table 1. Not all the Kansas hybrids are available commercially, but information on supplies of seed of Kansas 1583, Kansas 1585, Kansas 2234, U. S. 13, U. S. 35, Illinois 200, and K. I. H. 38 may be obtained by writing to The Kansas Crop Improvement Association, Manhattan, Kansas.

Data obtained in 1944 and summaries of those entries grown more than one year are reported in Tables 3 to 14. Commercially-available hybrids in the Experiment Field Tests or Corn Performance Tests that stood up as well as or better than the open-pollinated varieties and produced at least 10 percent more grain are listed on pages 12 and 13. Hybrids that yielded 10 percent more than the open-pollinated varieties in the Cooperative Corn Tests are listed on page 13.

Growers should carefully study the tests most nearly representing the location of their farm. Results obtained in several districts and over two or more years are more reliable than results obtained in only one district or one season.

More satisfactory results will usually be obtained if the corn acreage is planted to several tested hybrids of varying maturity instead of only one. The 1944 season was favorable for the fullseason hybrids. This is not always true in Kansas and there probably will be less risk in corn production if several hybrids differing in maturity dates are grown together. Relative maturity is indicated in the tables by the moisture content of the grain at harvest. Using different hybrids in each planter box is usually a desirable practice. As one cannot predict whether early- or late-planted corn will yield best, the date of planting should be spread over a period of two or three weeks.

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## KANSAS CORN TESTS, **1944**<sup>1</sup>

## A. L. Clapp<sup>2</sup>, E. G. Heyne<sup>3</sup>, C. D. Davis<sup>4</sup>, W. O. Scott<sup>5</sup>

## INTRODUCTION

The maximum production of agricultural products is still the goal for the Kansas farmer. We cannot afford, therefore, to waste our labor, soil moisture, and land on faulty crop production practices. There are several good practices that should be emphasized for optimum production such as good seedbed preparation, control of runoff water and soil erosion and crop rotations. If poor seed is planted, however, the benefits of even the best cultural practices may not be evident. Likewise, planting good seed does not assure good production unless the best cultural practices are used.

This bulletin summarizes the results of corn tests conducted in Kansas in 1944 and several previous years. This information should be of some help in determining the corn variety or hybrid to grow to obtain the greatest production from our Kansas corn fields. An important method of obtaining high production of corn is through more extensive use of desirable hybrids.

It has been estimated that about 47 percent of the Kansas corn acreage was planted to hybrid corn in **1944**. The acreage of hybrid corn should be increased, but that increase should be made with **good** hybrids. Not all hybrids are adapted to Kansas growing conditions. In nine Corn Performance Tests conducted in eastern Kansas over a two-year period the best hybrid outyielded the best open-pollinated variety 10.9 bushels per acre, **but** the lowest yielding hybrid in these same tests yielded **15.4** bushels per acre less than the best open-pollinated variety.

#### MATERIALS AND METHODS

The corn tests in 1944 were similar to those tests of previous years. The state was divided into seven districts on the basis of soil, rainfall, and growing season. The Kansas corn-testing program, outlined in Figure 1, included hybrids and open-pollinated varieties developed and distributed by federal, state, and commercial agencies. These trials were grouped into three divisions as follows: (1) Experiment Field Tests, (2) Corn Performance Tests, and (3) Cooperative Corn Tests. The entries in these trials are listed in Table 1.

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#### CORN PERFORMANCE TESTS

Corn Performance Tests were located in Districts 1, 2 and 3 of eastern Kansas in 1944 (Fig. 1). These trials were made possible through the cooperation of the following men on whose farms the tests were located: Jackson county, C. F. M. Stone, Whiting; Anderson county, Lloyd N. Jefferson, Garnett; Neosho county, R. A. Butler, Erie.

Seed for the performance tests was obtained from commercial sources whenever possible. Four seeds were dropped per hill with hand planters and these tests were thinned to two



Fig. 1. Kansas corn testing program, 1944 indicating the seven districts and the counties in which corn tests were planted.

-Experiment Field Tests, data reported from three locations. E.

P-Corn Performance Tests, three locations. C-Cooperative Corn Tests, 75 locations.

plants per hill. Plots were two rows wide and 10 hills long and those of each kind of corn were distributed at random within replications. In order to equalize the influence of soil and other differences, five replications were planted at each location, but the data from only four replications were used in computing the results in Anderson county, District No. 2, in 1944.

Each entry was assigned a code number by which it was known throughout the season. This code number was replaced by the original designation after the results had been computed. Location of fields, procedure, and climatic information are given in Table 2. Records on yield, lodging, stand, and dropped ears were obtained at harvest. Representative samples of all entries from two replications of each test were used to determine shelling percentage and moisture content. The moisture determinations were made on shelled corn with a Tag-Heppenstall Moisture Meter by the Agricultural Adjustment Administration Test-



Hybrid or varietal designation	Color of Grain	Entered by	Performance record in Table No.
		HYBRIDS	
Cornhusker 30	Y Y	Cornhusker Hybrid Co., Fremont, Nebraska.	3, 5, 9 3, 5, 9
$\hat{50}$ 123	Ŷ Y	Kansas Agr. Expt. Sta. & U. S. D. A., Manhattan, Kansas.	3, 5 9, 13
Edw. Funk 840 1005	Y Y	Edw. H. Funk & Son, Kentland, Indiana	3, 5, 7, 9 5, 7
Embro 1001 1020 1325	Y Y Y	Ed. F. Mangelsdorf, Atchison, Kansas.	5, 7, 9 3, 5, 7, 9- 5, 7, 9
Funk G-92 G-96 G-97 G-98 G-131 G-517W	Y Y Y Y Y Y Y W	Funk Bros. Seed Co., Bloomington, Ill.	$\begin{array}{c} 3, \ 7, \ 7\\ 3, \ 5, \ 7\\ 3, \ 5, \ 7, \ 13, \ 14\\ 3, \ 7\\ 3, \ 5\\ 3, \ 7\\ 3, \ 5\\ 7\end{array}$
G-523 W G-80 G-88 G-94 G-135 G-150 G-702 G-711 G-723	፝ ጞጟጞጟጟጟጟ ጞጟ	Peppard Seed Co., Kansas City, Mo.	3, 4, 5, 7, 9, 10 3, 5, 7, 9, 13 3, 5, 7 3, 5, 7 3, 5, 7 3, 7, 9 3, 5, 7 3, 7, 9 3, 5, 7 3, 7
Hendriks L L2	Y Y	J. A. Hendriks, Garnett, Kansas. Kans. Agr. Expt. Sta. & U. S. D. A., Manhattan, Kansas.	5, 6, 7, 8, 11, 12 5, 7, 11
Henry Field 129-1 1298 135	Y Y Y	Henry Field Seed Co., Shenandoah, Iowa.	3, 5, 9 3, 5 <b>3, 5, 7, 9</b>

## TABLE 1. ENTRIES IN THE KANSAS CORN TESTS, 1944

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135 <u>L</u>	Y		3, 5, 7
135 <u>R</u>	Y		3, 5, 7
904	Y		3, 5, 9
Hy-Line M	Y	Swinger Hybrid Corn Co., Marshall, Mo.	3, 5, 9
M-1	Y		3, 5, 9
M-2	Y		3, 5, 9
Illinois 200	Y	Kans. Agr. Expt. Sta. & U. S. D. A., Manhattan, Kansas.	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
Iowealth 25	Y	Michael-Leonard Co., Ames, Iowa.	3, 5, 9
25A	Y		3, 5, 9
29A	Y		3, 4, 5, 9
TX 1	Y		5, 6, 7, 8, 11
Jewett 6	Y	Jewett Hybrid Corn Co., Butler, Mo.	3, 5, 9,
12	Y		3, 4, 5, 6, 7, 8, 9, 11
45 <b>3</b>	Y		3, 5, 7, 9
Kansas 3 4 5 11 15 16 17 1104 1516 1517 1582 1583 1585 1585 1588 1589 1614 1614 1617 1639 1643 1648 1659 1679 1715	፝፝፝፝፝፝፝፝፝፝፝፝፝፝፝፝፝ ጞጞጟጟጟጟጟጟጟጟጟጟጟጟጟጟጟጟጟጟጟ	Kans. Agr. Expt. Sta. & U. S. D. A., Manhattan, Kansas.	18 18 18 18 19 9, 10, 11, 13, 14 9 3, 5, 7, 9, 11, 13 11, 13 9, 13 3, 5, 7, 9, 11 9, 13 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 11 13 9 13 9, 13 9, 11 13

.

TABLE 1 (Continued).

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 $1718 \\ 1777 \\ 1781 \\ 1782 \\ 1783 \\ 1783 \\ 1784 \\ 1884 \\$ ¥¥¥¥¥¥¥¥¥¥¥¥¥¥¥¥¥¥¥  $\frac{1}{2063}$  $\frac{1}{2216}$  $\begin{array}{r} 2225\\ 22234\\ 22234\\ 22292\\ 2292\\ 2292\\ 2298\\ 2299\\ 2304\\ 2304 \end{array}$ 6, 7, 8, 9, 10, 11, 12, 13, 14 7, 9, 11, 13  $\frac{2305}{2306}$ Kellogg's KK-77 KK-88 KK-99A Y Y Y Kellogg-Kelly Seed Co., St. Joseph, Missouri. K. I. H. 38 Y Kans. Agr. Expt. Sta. & U. S. D. A., Manhattan, Kansas. 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 Maygold 39 49 50 59 Y Y Y Y Y Y Earl May Seed Co., Shenandoah, Iowa. McCurdy 95M 112M 117M 118M 120 123M YYYYYYYYYYY YYYYYYYY W. O. McCurdy & Sons, Fremont, Iowa. 95977575 9 124M 130M 977M

TABLE 1 (Continued).

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		TABLE I (Concluded).	
Midwest 23	Y	Stephen Bros., Buckner, Mo.	3, 5, 7, 9
Mo. King 103	Y	Missouri Hybrid Corn Co., Fulton, Mo.	3, 5, 7, 9
Reid Nat'l 127 129 130W 134 Reid Midland Hybrid	Y W Y Y	Reid National Corn Company, Anamosa, Iowa.	$\begin{array}{c} \textbf{3, 5, 9, 13} \\ \textbf{3, 7, 9} \\ \textbf{3, 5, 9} \\ \textbf{3, 4, 5, 6, 7, 9} \\ \textbf{3, 4, 5, 6, 7, 9} \\ \textbf{5, 7, 8, 11} \end{array}$
Pfister 164 380 1897 4897	Y Y Y Y	Pfister Associated Growers, El Paso, Illinois.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Pioneer 300 332 339	Y Y Y	Garst & Thomas Hybrid Corn Co., Coon Rapids, Iowa.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Steckley 790	Y	Kans. Agr. Expt. Sta., Manhattan, Kansas.	4, 10
Trinoka 7	Y	Kans. Agr. Expt. Sta. & U. S. D. A., Manhattan,	5, 6, 7, 8, 11, 12
U. S. 13 U. S. 35	Y Y	Kans. Agr. Expt. Sta. & U. S. D. A., Manhattan, Kansas.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
		OPEN-POLLINATED VARIET	IES
Hays Golden Midland A	Y Y	Kans. Agr. Expt. Sta. & U. S. D. A., Manhattan, Kansas.	9, 10, 11, 12, 13, 14 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
Pride of Saline	W		3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
Reid Yellow Dent	Y		3, 4, 9
Colby Yellow Cap	Y		10, 14

TABLE 1 (Concluded)

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ing Laboratory, Manhattan, Kansas. The yields of the entries in each test are reported on a comparable basis of shelled grain, adjusted to a moisture content of 15.5 percent. Stand of each entry was reported as percentage of a perfect stand. The percentage of erect plants was determined from plant counts for each entry.

#### EXPERIMENT FIELD TESTS

Experiment fields are located throughout the state and corn tests were conducted at the northcentral and southcentral Experiment fields. The Wichita field is located in District 5, and the data reported were obtained by Walter Moore. The Smith Center field is in District 6, and the Belleville field in District 4, and the data reported were obtained by M. C. Axelton. These tests contained a number of commercially-available hybrids and are being reported for that reason. The trials were handled in a manner similar to that of the Corn Performance Tests except that three instead of five replications were planted.

#### COOPERATIVE CORN TESTS

Strip tests of corn varieties and hybrids were conducted by the Department of Agronomy of the Kansas Agricultural Experiment Station in cooperation with county agricultural agents. vocational teachers, and farmers. Seed for these tests was assembled and distributed by the Department of Agronomy through the Seed Distribution Project. The tests were planted and harvested by the farmer cooperator and his county agent or vocational teacher. The entries in these tests were planted in four-row plots of sufficient length to obtain reliable areas for harvesting. One thirty-fifth or one-seventieth of an acre of each strain was harvested to determine acre yields. The yields were calculated on an ear corn basis, using 70 pounds per bushel. When moisture tests were available the yield was calculated on the basis of 15.5 percent moisture. Seed of standard varieties was obtained from growers of certified seed. The hybrids included in the tests were nominated by commercial producers or experiment stations interested in them. The policy is to include only those hybrids in Cooperative Corn Tests which previously have shown superiority in the Corn Performance Tests.

## STRAINS HIGHEST IN YIELD AND RESISTANCE TO LODGING

The data obtained are summarized in Tables 3 to 14 inclusive. As all hybrids are not equal in performance, an arbitrary measure has been set up to indicate the hybrids that have the best record. The commercially-available hybrids in the Experiment, Field Tests, or Corn Performance Tests that stood up as well as or better than the average of the adapted open-pollinated varieties and produced at least 10 percent more grain are as follows:

#### DISTRICT 1, NORTHEASTERN KANSAS

1944: Funk G-88, K1585, Funk G-80, K2234.

1943-1944, two-year average: Funk G-150, Funk G-80.

1942-1944, three-year average: Funk G-80, Funk G-150, K2234, K1585.

**1941-1944**, four-year average: K1585, K2234.

1940-1944, five-year average: Funk G-94, K. I. H. 38, U. S. 35, U. S. 13.

1939-1944, six-year average: Funk G-94, U. S. 35, U. S. 13.

#### DISTRICT 2, EASTCENTRAL KANSAS

1944: Kellogg's KK-99A, Edw. Funk 1005, Embro 1001. 1943-1944, two-year average: Funk G-80, Iowealth TX 1. 1942-1944, three-year average: Funk G-80, K1585.

1941-1944, four-year average: K1585, Reid Midland hybrid.

1940-1944, five-year average: Illinois 200.

1939-1944, six-year average: Illinois 200, Funk G-94.

#### DISTRICT 3, SOUTHEASTERN KANSAS

1944: Jewett 453, Iowealth TX 1, K1583, Funk G-131, Funk G-80, Hendriks L2, Illinois 200, Edw. Funk 1005.

1942 and 1944, two-year average: Iowealth TX 1, Funk G-88, K1583, Illinois 200, Funk G-135.

1941-1942 and 1944, three-year average: Iowealth TX 1, Funk G-88, Funk G-150.

1940-1942 and 1944, four-year average: Funk G-88.

#### DISTRICT 4, NORTHCENTRAL KANSAS, BELLEVILLE FIELD

1944: K2234, Embro 1325, K1583, Funk G-88, Reid National 129, Funk G-711, Jewett 453, K1585, Funk G-80, Jewett 12, Iowealth 25, Cornhusker 30, Missouri King 103, Funk G-150, K. I. H. 38, Embro 1001, Cornhusker 40, Pioneer 300, Maygold 50, Henry Field 135, Pioneer 339, Iowealth 25A, Pioneer 332, Pfister 164, Illinois 200, Kellogg's KK-88, Iowealth 29A, Reid National 130W, Midland A, Kellogg's KK-77, McCurdy 117M, Maygold 39, Midwest 23, U. S. 35.

**1943-1944**, two-year average: K2234, K1583, Funk G-88, Missouri King 103, Pioneer 300, Illinois 200, Funk G-80, K1585, K. I. H. 38, Kellogg's KK-77, U. S. 13, Midland A, U. S. 35.

**1942-1944**, three-year average: K2234, Funk G-88, Illinois 200, K. I. H. 38, Pioneer 300; Kellogg's KK-77, U. S. 13, U. S. 35.

#### DISTRICT 5, SOUTHCENTRAL KANSAS, WICHITA FIELD

1944: Funk G-711, K1585, Iowealth TX 1, K1583, Hendriks L2, K2234, Pride of Saline, Trinoka 7.

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1943-1944, two-year average: Jewett 12, K2234, Hendriks L, K1585.

#### 1942-1944, three-year average: K2234, K1585.

1941-1944, four-year average: None.

## DISTRICT 6, NORTHWESTERN KANSAS, SMITH CENTER FIELD

1944: Funk G-88, Pfister 164, Funk G-711, Funk G-97, Pfister 380, K1583, Pride of Saline.

1942 and 1944, two-year average: K2234.

No records on erect plants were reported in the Cooperative Corn Tests. The following entries, however, produced at least 10 percent more grain than the average of the better adapted open-pollinated varieties:

### DISTRICT 1, NORTHEASTERN KANSAS

**1944**: K2234, K1585, K1583, Reid National 134, U. S. 13. **1943-1944**: K2234, K1585, K1583, Reid National 134. **1941-1944**: Reid National 134, Illinois 200, K. I. H. 38.

#### DISTRICT 2, EASTCENTRAL KANSAS

1944: K2234, K1585, Hendriks L, K1583, Funk G-711. 1943-1944: K2234, K1585, Hendriks L. 1942-1944: None.

#### **DISTRICT 3, SOUTHEASTERN KANSAS**

1944: K2234, K1585, Trinoka 7. 1943-1944: K2234, K1585. 1941-1944: None.

#### DISTRICT 4, NORTHCENTRAL KANSAS

1944: K2234, K1585, Illinois 200, Funk G-80, K1583. 1943-1944: K2234, K1585, Funk G-80, K1583, Illinois 200, U. S. 13.

1942-1944: Illinois 200.

#### DISTRICT 5, SOUTHCENTRAL KANSAS

**1944**: K2234, K1585.

**1943-1944**: K2234, K1585, K1583, Hendriks L. **1941-1944**: None.

#### DISTRICT 6, NORTHWESTERN KANSAS

1944: K2234, K1583, K1585, K. I. H. 38, U. S. 13, Illinois 200. 1943-1944: K2234. 1942-1944: None.

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## **INTERPRETATION OF RESULTS**

It is not possible to determine the relative yielding ability with absolute accuracy, and small differences do not prove that one hybrid is better than another. Experience has shown that differences in yield may be expected among plots planted from the same seed. These differences may be due to such things as soil or stand variations, but they are reduced to a large extent by repeating or "replicating" the same corn several times in the same test. Even with replication, differences remain which are said to be due to chance. Methods are available for calculating an estimate of the errors due to chance.

A figure representing the estimated difference between varieties that is due to chance can be calculated. This figure called "significant difference" is given in many of the tables. In District **1**, Table 3, the significant difference was calculated as 5.7 bushels. A hybrid was highest in yield in this district and produced 64.5 bushels per acre. Therefore, any entry that yielded 58.7 bushels or less in this test would be expected to yield significantly fewer bushels than the highest-yielding hybrid. Pride of Saline yielded an average of 51.4 bushels per acre in this test. Therefore, any strains of corn that yielded between 45.7 and 57.1 bushels (5.7 subtracted from 51.4 and 5.7 added to 51.4) would be considered similar in yielding ability to Pride of Saline in the 1944 District **1** test. In other words, any two entries in Table 3 must differ by at least **5.7** bushels before they may be considered as differing in yielding ability.

The results given in Tables 3 to 14 inclusive should be used as a basis in selecting corn hybrids for planting. The tests most nearly representing the location of the farm should be studied carefully. Two- or three-year averages are usually more reliable than results obtained in only one season. Seasonal conditions vary from year to year and cause a difference in the response of corn hybrids and varieties. A period of early prolonged drought and high temperature is likely to favor an early-maturing entry, whereas, a later-maturing strain often is able to take advantage of a longer growing season when the drought period does not occur until later. In general, the early to midseason entries were favored in 1939 and 1940, whereas the later-maturing strains tended to be most productive in 1938, and in the past four years.

In Kansas where periods of drought and heat are frequent most of the pollen may be killed and poor seed set result on those strains which happen to be in flower during one of these periods. Observations indicate that a variety in which there is considerable variation in date of pollination among individual plants is likely to yield more grain during seasons of adverse weather conditions than a more uniform variety.

Hybrid corn is well known and liked because of its uniformity. Because of its uniformity, it does have a shorter period

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of pollination than open-pollinated varieties. Since there is less variation in date of pollination in hybrid corns it is advisable to plant in the same field two or more adapted hybrids differing in maturity. The approximate maturity of a hybrid (early, midseason or late) can be estimated from the data on the moisture content of the grain at harvest. The early strains will tend to have a low percentage of moisture while the late strains a higher moisture content. Moisture percentages are given in many of the tables.

As it cannot be predicted at planting time whether an early, midseason or late-maturing hybrid will yield best, it may be desirable to use hybrids differing in maturity in each planter box, thus planting two hybrids in the same field. It is also recommended that the time of planting be spread over several weeks.



TABLE 2. LOCATION, PROCEDURE AND CLIMATIC INFORMATION ON CORN PERFORMANCE AND EXPERIMENT FIELD TESTS, 1944.

Cooperator	District 1 N. E. Kansas Chas. Stone Whiting	District 2 E. C. Kansas L. Jefferson Garnett	District 3 S. E. Kansas R. A. Butler Erie	District 4 N. C. Kansas M. C. Axelton Belleville	District 5 S. C. Kansas W. Moore Kingman	District 7 N. W. Kansas M. C. Axelton Belleville
No. of entries	82	82	69	81	43	39
No. of replications Planted Harvested	5 5	5 4	5	3	3	3 3
Size of plot (hills) Hill spacing inches Rate of planting (kernels par hill)	$\begin{array}{cccc} 2 & \mathrm{x} & 10 \\ 42 & \mathrm{x} & 42 \\ 4 \end{array}$	$\begin{array}{cccccccc} 2 & \mathbf{x} & 10 \\ 42 & \mathbf{x} & 42 \\ & 4 \end{array}$	$\begin{array}{c}2 \mathbf{x} 10 \\ 42 \mathbf{x} 42 \\ 4\end{array}$	$\begin{array}{ccc} 2 & \mathbf{x} & 20 \\ 42 & \mathbf{x} & 24 \\ & & 2 \end{array}$	$2 \times 23 \\ 42 \times 30 \\ 2$	$\begin{array}{c} 2 \mathbf{x} 18 \\ 40 \mathbf{x} 30 \\ 2 \end{array}$
Thinned to plants per hill Date of planting Date of harvest Seedbed preparation	2 May 17 • Nov. 19 Disked & listed	2 May 19 Oct. 24-26 Plowed, disked & harrowed	2 May 15 Oct. 12-13 Plowed & harrowed	1 May 16 Nov. 6-13 Plowed	1 May 10-11 Nov. 10 Plowed	1 May 23 Nov, 14-17 Plowed
Rainfall <sup>1</sup> May June July Aug. Sept.	7-4.896-3.486-2.329-8.803-1.08	5 - 3.42 8 - 6.91 4 - 3.61 8 - 9.45 2 - 2.75	3 - 1.49 5 - 3.73 5 - 3.27 5 - 4.87 1 - 6.00	8-3.12 11-5.53 10-4.79 9-6.38 4-1.68	4-2.96 7-2.21 9-4.32 9-6.61 3-1.91	7-4.83 6-5.89 7-1.74 5-5.85 244
Total, 5 months	31-20.57	27-26.14	19-19.36	42-21.50	32-18.01	27-18.75

<sup>1</sup>First figure indicates number of rains, and second the total monthly rainfall in inches.

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EA	STERN KANSAS.								
r.	Thebasia	i	Acre vield	p p	lants		ę	bn	
Rank i Vield	Hybrid or variety	Actual	Rela- tive*	Actual	Rela- tive*	Stand	Moistur	Shelling	Ears per cwt
	· .	Bu.	Pet.	Pct.	Pct.	Pct.	Pct.	Pct.	No.
1 2 3 . 4	Funk G-88 Funk G-711 Funk G-523W Jewett 12	64.5 61.2 61.0 58.9	125 118 118 114	82 74 95 77	<b>TS, 194</b> 4 103 93 119 96	99 98 100 97	$15.7 \\ 17.4 \\ 17.8 \\ 14.3$	85.9 85.0 81.3 85.5	$156 \\ 146 \\ 163 \\ 179$
	Differences in yield	of less	than 5.7 in thi:	bushe s test	els an ao	cre an	e not si	gnificar	it .
5678910	Kansas 1585 Funk G-80 Kansas 2234 Kansas 2305 Cornhusker 40 Jewett 453	58.6 57.3 57.0 56.7 55.9 55.6	$113 \\ 111 \\ 110 \\ 110 \\ 108 \\ 108 \\ 108$	93 97 94 99 97 89	$     \begin{array}{r}       116 \\       121 \\       118 \\       124 \\       121 \\       111     \end{array} $	96 98 98 96 95 96	17.5 16.1 16.4 14.6 16.3 16.6	84.4 85.0 80.9 83.7 84.3 82.5	$168 \\ 165 \\ 171 \\ 170 \\ 183 \\ 188$
$     \begin{array}{r}       11 \\       12 \\       13 \\       14 \\       15 \\       16 \\       17 \\       18 \\       19 \\       20 \\       \end{array} $	Kansas 16 Funk G-135 Henry Field 185 Kansas 2275 Kansas 1784 Midwest 23 Illinois 200 Kansas 2299 Funk G-150 Kansas 2298	55555555555555555555555555555555555555	108107107106105105104104104	76 90 83 97 98 98 98 96 84 98	$\begin{array}{r} 95\\ 113\\ 104\\ 121\\ 123\\ 115\\ 116\\ 120\\ 105\\ 123 \end{array}$	98 99 99 99 99 99 99 99 90 90 90 90 90 90	19.8 14.7 14.7 13.6 12.8 13.5 13.3 14.3 14.7 13.7	$\begin{array}{c} 82.8\\ 85.4\\ 85.4\\ 84.3\\ 84.3\\ 84.8\\ 82.7\\ 82.7\\ 80.9\end{array}$	181 176 190 211 193 201 189 180 208 188
21 223 223 225 225 227 229 30	Iowealth 25 Funk G-98 Kansas 1517 Reid Nat'l 130W Reid Yellow Dent Jewett 6 Reid Nat'l 127 Kansas 1583 Henry Field 135L Funk G-92	53.2 53.2 53.0 52.5 52.3 52.1 52.1 52.0 52.0 52.3 52.1 52.0 52.0	$     103 \\     103 \\     102 \\     102 \\     101 \\     101 \\     101 \\     101 \\     101 \\     101 \\     101   $	955 855 9778 9778 8798 889 888 886	119 106 120 96 98 120 109 111 108	95759942 9989942 99999999999999999999	$13.1 \\ 13.1 \\ 19.9 \\ 16.3 \\ 15.2 \\ 14.9 \\ 14.4 \\ 17.7 \\ 13.8 \\ 13.3 \\$	83.5 81.1 82.7 83.2 83.2 85.2 85.5 83.9 83.9 83.9 83.9 83.9 83.9	209200153181198164187198194218
$31 \\ 32 \\ 34 \\ 35 \\ 36 \\ 38 \\ 39 \\ 40$	Cornhusker 30 Kansas 1783 K. I. H. 38 Funk G-131 Midland A Funk G-96 Pride of Saline Funk G-94 Funk G-702 Kansas 1782	51.9 51.9 51.8 51.7 51.6 51.5 51.4 51.0 50.9 50.3	100 100 100 100 100 99 99 99 99 99	96 933 887 95 96 96 96 94	120 116 104 105 109 119 99 120 109 118	9584 9999 9999 9999 9999 9999 9999 9999	$14.1 \\ 12.8 \\ 13.2 \\ 15.2 \\ 16.7 \\ 13.4 \\ 15.4 \\ 15.4 \\ 16.3 \\ 12.9 \\ 12.9 \\$	85.1 82.9 83.8 83.2 85.0 83.3 80.9 85.6 83.5 84.0	196 205 192 208 183 243 179 212 187 209
41 42 43 445 46 47 48 49 50	Mo. King 103 Funk G-97 Reid Nat'l 129 Pfister 1897 Pioneer 339 Kansas 1659 Pfister 4897 U. S. 35 U. S. 13 Hyline M-1	$\begin{array}{c} 50.2\\ 50.1\\ 50.0\\ 49.6\\ 49.2\\ 49.2\\ 49.1\\ 49.1\\ 48.5 \end{array}$	97 97 995 955 955 955 995 995 995	91 99 99 99 99 99 99 99 99 99 99 99 99 9	114 111 119 124 120 119 119 119 116 118	957 987 986 986 986 986 986 988 988	13.5 13.7 13.6 13.2 12.9 12.9 12.9 12.9 12.8 13.3 13.5	83.0 84.3 84.6 84.5 85.1 84.6 86.9 85.1 85.6 83.8	186 203 194 213 210 208 192 218 229 195
51 52 53 55 55 55 55 55 55 55 55 55 55 55 55	Kansas 1781 McCurdy 118M McCurdy 117M Maygold 59 McCurdy 112M Henry Field 135R Maygold 49 Iowealth 29A Pioneer 332 Kellogg's KK-88	$\begin{array}{r} 48.4\\ 48.4\\ 48.2\\ 47.6\\ 47.3\\ 47.3\\ 47.3\\ 47.2\\ 47.1\\ 47.1\end{array}$	94 93 92 92 92 92 92 91 91	974 995 996 995 995 995 995 992	$121 \\ 118 \\ 119 \\ 120 \\ 120 \\ 116 \\ 114 \\ 119 \\ 121 \\ 115$	97 98 996 98 94 94 97 99 99 992	$13.1 \\ 13.0 \\ 13.5 \\ 12.9 \\ 13.3 \\ 13.0 \\ 13.1 \\ 13.0 \\ 13.1 \\ 14.0 \\ $	84.7 86.0 85.3 86.7 84.9 84.9 85.6 85.6 85.8 85.8 85.8 83.8	$\begin{array}{c} 207\\ 218\\ 221\\ 173\\ 216\\ 250\\ 215\\ 227\\ 227\\ 231\\ \end{array}$

TABLE 3. RESULTS, CORN PERFORMANCE TEST, DISTRICT 1, NORTH-EASTERN KANSAS.

\*Performance of entry relative to the average of open-pollinated varieties.

TABLE 3. RESULTS, CORN PERFORMANCE TEST, DISTRICT 1, NORTH-EASTERN KANSAS (Continued).

~			Acre vield	l I	Erect plants		Ð	۵n	<u>نہ</u>
Rank in yield	Hybrid or variety	Actual	Rela- tive*	Actual	Rela- tive*	Stand	Moistur	Shellin	Ears per cw
$\begin{array}{c} 61 \\ 62 \\ 63 \\ 65 \\ 66 \\ 67 \\ 68 \\ 69 \\ 70 \end{array}$	Kellogg's KK-77 Pioneer 300 Cornhusker 50 Maygold 39 Pfister 164 Hyline M Hyline M-2 McCurdy 120 Kellogg's KK-99A Edw. Funk 840	Bu. 47.0 46.8 46.8 46.6 46.5 46.2 45.7 45.4 45.1	Pct. 91 91 90 90 90 89 88 88 88 88	Pct. 90 95 94 94 98 98 98 98 98 98 98 94 89 94	Pct. 113 119 118 123 120 123 118 111 118	Pct. 95 98 95 96 96 96 96 98 96 95	Pct. 12.9 13.1 13.7 13.3 13.5 13.3 13.3 12.8 12.9 13.5	Pct. 8555 86.4 83.9 82.9 84.5 85.0 83.6 85.1	No. 197 223 206 204 192 225 236 233 218 219
71 72 734 75 76 77 78 79	McCurdy 124M Funk G-517W Embro 1020 Pfister 380 Henry Field No. 904 Iowealth 25A Henry Field 129S Henry Field 129-1 McCurdy 977M	$\begin{array}{r} 45.1 \\ 45.0 \\ 44.9 \\ 44.1 \\ 43.9 \\ 43.7 \\ 43.5 \\ 43.0 \\ 41.3 \end{array}$	87 87 85 85 85 85 85 85 85 85 85 85	92 96 934 93 93 93 93 93 93	$115 \\ 120 \\ 116 \\ 118 \\ 116 \\ 116 \\ 105 \\ 118 \\ 118 \\ 116 \\ 118 \\ 116 \\ 118 \\ 116 \\ 118 \\ 116 \\ 116 \\ 105 \\ 116 \\ 116 \\ 105 $	91 94 96 98 98 92 97 96 92	$12.8 \\ 15.3 \\ 12.7 \\ 13.2 \\ 12.8 \\ 13.7 \\ 12.6 \\ 12.9 \\ $	$\begin{array}{r} 84.5\\79.5\\82.5\\82.2\\84.2\\83.9\\83.6\\83.5\end{array}$	$\begin{array}{c} 221 \\ 162 \\ 195 \\ 231 \\ 223 \\ 213 \\ 234 \\ 244 \\ 245 \end{array}$
$^{80}_{81}_{82}$	Funk G-723 Reid Nat'l 134 Maygold 50	$40.8 \\ 37.4 \\ 36.1$	$79 \\ 72 \\ 70$	$71 \\ 85 \\ 96$	$\begin{array}{c} 89\\ 106\\ 120 \end{array}$	$99 \\ 93 \\ 94$	$19.1 \\ 12.7 \\ 13.0 \\$	$     \begin{array}{r}       81.4 \\       85.0 \\       83.6 \\     \end{array} $	$236 \\ 272 \\ 189$
Av. Av.	of 82 entries of 2 adapted open-	50.2	100	91	100	96 97	14.2	84.1	203 185
Av.	of 79 hybrids	50.1	97	92	115	96	14.1	84.2	204
1 2 3 4 5 6 7 8 9 10	TV Funk G-711 Jewett 12 Funk G-150 Funk G-80 Kansas 2234 Kansas 2275 Kansas 16 Kansas 16 Funk G-94	VO-YH 65.8 65.7 64.5 62.3 62.2 62.2 62.2 62.0 61.9 59.2	EAR AVI 115 115 113 112 109 109 109 109 108 104	<b>CRAG</b> 84 87 97 96 99 84 96 80 97	E, 1943-: 97 92 100 111 110 114 97 110 92 111	1944 90 96 97 95 89 97 98 90 95 95	$18.9 \\ 15.5 \\ 14.7 \\ 16.3 \\ 18.1 \\ 15.7 \\ 19.9 \\ 17.6 \\ 16.1 \\ 13.5 \\ 13.5 \\ 18.5 \\ 10.1 \\ $		$160 \\ 174 \\ 203 \\ 158 \\ 203 \\ 162 \\ 169 \\ 167 \\ 158 \\ 195 $
$11 \\ 12 \\ 13 \\ 15 \\ 15 \\ 17 \\ 19 \\ 20$	Kansas 1583 U. S. 13 Pioneer 300 Hyline M-1 Pride of Saline K. I. H. 38 Reid Yellow Dent U. S. 35 Midland A Iowealth 25	59.0 587.8 577.8 577.0 557.0 557.0 555.5 5	$103 \\ 102 \\ 101 \\ 101 \\ 100 \\ 100 \\ 100 \\ 100 \\ 99 \\ 97$	91 96 97 985 854 91 97	$     \begin{array}{r}       105 \\       110 \\       111 \\       110 \\       98 \\       97 \\       109 \\       105 \\       111     \end{array} $	8967 9958 9958 9958 9958 995 995 995 995 995	$19.7 \\ 13.3 \\ 13.5 \\ 14.0 \\ 16.5 \\ 13.2 \\ 15.5 \\ 13.1 \\ 18.1 \\ 14.0 \\ $	$\begin{array}{r} 82.8\\ 85.2\\ 84.1\\ 83.5\\ 83.5\\ 84.5\\ 84.5\\ 84.9\\ 82.8\\ 83.7\end{array}$	162 201 204 177 169 189 175 193 178 197
$21 \\ 22 \\ 23 \\ 24 \\ 25 \\ 26 \\ 27 \\ 28 \\ 29 \\ 30$	Midwest 23 Embro 1020 Reid Nat'l 129 Mo. King 103 Kansas 1659 Illinois 200 Kellogg's KK-88 Henry Field 135R McCurdy 118M Kellogg's KK-77	55.38 54.45 553.341 553.322 55555 5522.38 555555 555555 5555555555 55555555	97 96 95 94 93 93 92 92 91	93 96 96 97 94 96 96 98	$107 \\ 110 \\ 108 \\ 111 \\ 108 \\ 108 \\ 108 \\ 108 \\ 110 \\ 110 \\ 107 \\ 107 \\ 107 \\ 107 \\ 107 \\ 107 \\ 100 \\ 107 \\ 100 $	91 96 92 90 90 90 91 82	$14.8 \\ 13.6 \\ 14.7 \\ 14.0 \\ 13.1 \\ 14.9 \\ 14.1 \\ 13.5 \\ 12.8 \\ 13.0 \\ $	$\begin{array}{c} 82.4\\ 84.2\\ 83.8\\ 82.9\\ 84.6\\ 83.2\\ 83.3\\ 84.5\\ 85.2\\ 85.1\end{array}$	189 177 194 166 186 181 207 229 212 193
$31 \\ 32 \\ 33 \\ 34$	Maygold 39 Maygold 49 McCurdy 124M Henry Field 129-1	$50.8 \\ 50.7 \\ 50.5 \\ 49.3$	89 89 88 86	97 92 96 95	$111 \\ 106 \\ 110 \\ 109$	88 87 88 89	$13.6 \\ 13.0 \\ 12.6 \\ 12.8$	$83.5 \\ 85.1 \\ 84.1 \\ 84.2$	$179 \\ 197 \\ 197 \\ 211$

\*Performance of entry relative to the average of open-pollinated varieties.

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TABLE 3. RESULTS, CORN PERFORMANCE TEST, DISTRICT 1, NORTH-EASTERN KANSAS (Continued).

- ·	Hybrid		Acre vield	l l	Erect lants			50	
Rank ir yield	Hybrid or variety	Actual	Rela- tive*	Actual	Rela- tive*	Stand	Moistur	Shelling	Ears per cwt
35 36 37 38 39	Iowealth 29A Iowealth 25A Maygold 59 McCurdy 977M Reid Nat'l 134	Bu. 49.2 48.9 48.2 47.9 47.1	Pct. 86 86 84 84 82	Pet. 96 91 98 96 89	Pct. 110 105 113 110 102	Pct. 87 82 86 88	Pct. 14.2 15.5 13.1 12.9 14.9	Pct. 84.2 84.1 86.2 84.5 85.0	No. 202 204 199 230 226
Av. Av. pc Av.	of 39 entries of 3 adapted open- ollinated varieties of 36 hybrids	55.9 57.1 <b>55.8</b>	100 <b>98</b>	93 87 <b>93</b>	100 <b>107</b>	92 96 <b>91</b>	14.8 16.7 <b>14.7</b>	83.7 81.9 <b>83.8</b>	189 174 <b>190</b>
	THRE	E-YE.	AR AVE	RAGE	, 1942-1	943-18	944		•
$     \begin{array}{r}       1 \\       2 \\       3 \\       4 \\       5 \\       6 \\       7 \\       8 \\       9 \\       1 \\       0 \end{array} $	Funk G-80 Funk G-150 Kansas 2234 Kansas 1585 Jewett 12 Kansas 1583 Funk G-94 Pride of Saline Midland A K. I. H. 38	$\begin{array}{c} 67.4 \\ 67.2 \\ 66.3 \\ 66.0 \\ 62.1 \\ 61.0 \\ 60.6 \\ 60.4 \\ 60.2 \end{array}$	$113 \\ 113 \\ 112 \\ 111 \\ 100 \\ 102 \\ 101 $	95 94 94 92 93 89 89 89 89	$114 \\ 102 \\ 113 \\ 96 \\ 111 \\ 112 \\ 98 \\ 107 \\ 99$	89 91 86 87 87 91 90 87	$17.3 \\ 15.4 \\ 18.8 \\ 18.0 \\ 16.1 \\ 18.7 \\ 14.2 \\ 17.4 \\ 18.5 \\ 14.1 \\ $	83.6 82.1 77.6 82.2 81.8 84.4 78.8 81.8 81.8 81.8 81.8	
$11 \\ 12 \\ 13 \\ 14 \\ 15 \\ 16 \\ 17 \\ 18 \\ 19 \\ 20$	Midwest 23 U.S. 35 Pioneer 300 Illinois 200 U.S. 13 Mo. King 103 Reid Yellow Dent Reid Nat'l 129 McCurdy 118M Kellogg's KK-77	59.4 59.3 59.3 59.3 59.1 58.6 57.1 57.0 56.2	99 99 99 99 98 98 98 95 95 95 94	93 93 97 91 93 92 79 93 93	$112 \\ 112 \\ 117 \\ 110 \\ 112 \\ 111 \\ 95 \\ 110 \\ 112 \\ 108 \\$	86 88 96 86 86 86 86 86 86 85 86 85 88 85 88	$15.2 \\ 13.5 \\ 14.2 \\ 15.5 \\ 14.2 \\ 14.9 \\ 16.5 \\ 14.8 \\ 13.2 \\ 13.4 \\ 13.4 \\$	$\begin{array}{c} 82.2\\ 84.7\\ 83.5\\ 82.6\\ 84.5\\ 82.2\\ 82.1\\ 83.2\\ 84.8\\ 84.5\\ 84.5\\ \end{array}$	
$21 \\ 22 \\ 23 \\ 24 \\ 25$	Reid Nat'l 134 Iowealth 25A Maygold 49 McCurdy 124M Maygold 59	$55.4 \\ 55.2 \\ 55.0 \\ 54.0 \\ 51.1$	92 92 92 90 85	87 89 92 93 94	$105 \\ 107 \\ 111 \\ 112 \\ 113$	84 82 81 78	$16.4 \\ 16.4 \\ 13.5 \\ 13.0 \\ 13.9$	$\begin{array}{c} 83.7 \\ 83.1 \\ 84.8 \\ 84.0 \\ 84.9 \end{array}$	
Av. Av.	of 25 entries of 3 adapted open- ulinated varieties	59.7 59.9	100	90. 83	100	85 89	15.5 17.5	82.9 80.9	, ' , '
Av.	of 22 hybrids	59.7	100	91	110	85	15.2	83.2	
12345678910	FOUR-Y Jewett 12 Kansas 1585 Kansas 2234 Funk G-94 K. I. H. 38 U. S. 13 U. S. 13 U. S. 35 Midland A Pioneer 300 Pride of Saline	65.3 62.7 62.3 60.2 60.0 59.8 59.6 57.9 57.8 57.5	AVERAC 115 111 110 106 106 106 105 102 102 102	<b>* №, 19</b> 73 85 81 89 78 83 89 81 91 74	$\begin{array}{c} 96\\ 112\\ 107\\ 116\\ 103\\ 110\\ 118\\ 107\\ 120\\ 97 \end{array}$	1943- 84 85 85 84 85 84 85 88 85 89	16.4 16.4 17.9 18.9 14.8 14.7 14.6 14.1 18.7 14.5 17.6	82.4 81.9 77.3 84.5 84.2 84.7 84.9 81.6 83.8 78.8	†175 179 208 195 206 195 295 187 208 186
$11 \\ 12 \\ 13 \\ 14 \\ 15 \\ 16$	Illinois 200 Kellogg's KK-77 McCurdy 118M McCurdy 124M Reid Yellow Dent Reid Nat'l 134	$56.2 \\ 55.8 \\ 55.6 \\ 54.8 \\ 54.4 \\ 52.6 \\ $	99 98 97 96 93	* 85 87 89 87 74 77	$112 \\ 114 \\ 118 \\ 115 \\ 97 \\ 101$	83 80 83 81 84 84	16.0 14.4 13.8 13.7 16.8 16.9	$\begin{array}{c} 82.6\\ 84.6\\ 84.8\\ 84.2\\ 82.4\\ 83.1 \end{array}$	$201 \\ 197 \\ 217 \\ 199 \\ 198 \\ 233$
Av. Av. pc Av.	of 16 entries of 3 adapted open- llinated varieties of 13 hybrids	58.3 56.6 <b>58.7</b>	100 <b>104</b>	83 76 84	100 111	84 87 <b>85</b>	15.9 17.7 <b>15.4</b>	82.9 81.0 <b>83.3</b>	199 190 <b>201</b>

\*Performance of entry relative to the average of open-pollinated varieties. †This column-average three years, 1941-1943-1944.

## Historical Document Renses Agricultural Experiment System

#### **KANSAS BULLETIN 325**

TABLE 3. RESULTS, CORN PERFORMANCE TEST, DISTRICT 1, NORTH-EASTERN KANSAS (Concluded).

		Acre yield		E p	Erect plants		Ire	0.6				
Rank i yield	or variety	Actual	Rela- tive*	Actual	Rela- tive*	Stand	Moistu	Shellir	Ears per cw			
		Bu.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	No.			
	FIVE-YEAR AVERAGE, 1940-1941-1942-1943-1944											
1234567890111	Funk G-94 K. I. H. 38 U. S. 35 U. S. 13 McCurdy 118M Illinois 200 Kellogg's KK-77 Pride of Saline Midland A Reid Nat'l 134 Reid Yellow Dent	59.3 58.9 57.0 555.5 555.5 54.3 555.5 522.3 522.3 522.3 522.3 522.3 522.3 522.3 522.3 522.3 522.3 522.3 522.3 522.3 525.5 555.5 555.5 555.5 555.5 555.5 555.5 555.5 5555	114 113 112 110 107 107 105 104 100 100 95	89 90 95 95 95 88 95 88 87 88 78 87 77	$     \begin{array}{r}       117 \\       105 \\       118 \\       112 \\       118 \\       112 \\       116 \\       977 \\       108 \\       108 \\       96 \\       96 \\       \end{array} $	85575555198455 8888888888888888888888888888888888	$\begin{array}{c} 14.6 \\ 14.4 \\ 14.0 \\ 14.5 \\ 13.9 \\ 15.8 \\ 14.3 \\ 15.4 \\ 18.7 \\ 16.6 \\ 16.7 \end{array}$	83.9 83.6 83.1 83.5 83.6 78.1 83.6 78.1 83.6 78.1 82.5 82.5				
Av.	of 11 entries	55.4		83		85	15.4	82.6	168			
Av.	of 8 hybrids	$52.1 \\ 56.6$	100 109	76 <b>86</b>	100 <b>113</b>	87 85	16.9 <b>14.8</b>	80.4 <b>83.5</b>	166. <b>168</b>			
	SIX-YEAR	AVER	AGE, 19	39-194	0-1941-1	1942-1	943-1944					
1234567	Funk G-94 U. S. 35 U. S. 13 Kellogg's KK-77 Pride of Saline Midland A Reid Yellow Dent	$\begin{array}{c} 63.2\\ 62.8\\ 61.5\\ 57.9\\ 56.2\\ 52.6\\ 51.7\end{array}$	$118 \\ 117 \\ 115 \\ 108 \\ 105 \\ 98 \\ 97$	89 89 89 74 82 72	$     \begin{array}{r}       117 \\       117 \\       112 \\       117 \\       97 \\       108 \\       95 \\       95 \\       \end{array} $	85 88 89 89 86	$13.8 \\ 13.2 \\ 13.8 \\ 13.5 \\ 16.3 \\ 17.6 \\ 15.5 \\ $	83.8 84.1 83.1 83.4 78.5 81.0 82.6	\$193 199 217 200 198 206 217			
Av.	of 7 entries	58.0		83		86	14.8	82.4	204			
Av. po Av.	of 3 adapted open- ollinated varieties of 4 hybrids	53.5 <b>61.4</b>	100 115	76 88	100 <b>116</b>	87 85	16.5 <b>13.6</b>	80.7 <b>83.6</b>	207 <b>202</b>			

tThis column—average four years, 1940-1941-1943-1944. \$This column—average five years, 1939-1940-1941-1943-1944.

TABLE 4. RESULTS, COOPERATIVE TESTS, DISTRICT 1, NORTHEAST-ERN KANSAS.

Hybrid or	19 17 t	44 ests	1943 31 t	-1944 cests	1941-1944 83 tests		
variety	Yield	Rank	Yield	Rank	Yield	Rank	
	Bu.		Bu.		Bu.		
Kansas 2234 Kansas 1585 Kansas 1583 Reid National 134 U. S. 13 Funk G-80 K. I. H. 38 Illinois 200 Pioneer 300 Midland A	$\begin{array}{c} 71.3\\ 67.1\\ 65.9\\ 63.1\\ 62.4\\ 62.0\\ 61.9\\ 58.5\\ 57.8\end{array}$	1 2 3 4 5 6 7 8 9 10	$\begin{array}{c} 72.3\\ 65.3\\ 66.1\\ 64.3\\ 61.4\\ \\ \hline \\ 62.5\\ 62.7\\ \hline \\ 58.7 \end{array}$	1 2 4 7  6 5	60.1 57.9 58.9 59.2	 1 4  2 ,	
Pride of Saline Jewett 12 Steckley 790 U. S. 35 Iowealth 29A Reid Yellow Dent	57.8 56.1 56.1 56.0 55.8 55.0	10 12 12 14 15 16	58.8 57.5 58.1 55.6 55.8	8 11 10 12  13	55.3 54.3 51.2	5  6  7	

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TABLE 5. RESULTS, CORN PERFORMANCE TEST, DISTRICT 2, EAST-CENTRAL KANSAS.

		A y	ield	J p	Grect lants			20	
Rank n yield	Hybrid or variety	Actual	Rela- tive*	Actual	Rela- tive*	Stand	Moistur	Shelling	Ears per cwt
	······································	Bų.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	No.
$     \begin{array}{c}       1 \\       2 \\       3 \\       4 \\       5 \\       6 \\       7 \\       9 \\       10 \end{array} $	Kellogg's KK-88 Kansas 2275 Kellogg's KK-99A Edw, Funk 1005 Midwest 23 Kansas 1517 Kansas 1783 Embro 1001 Jewett 453 Kansas 1781	<b>ONE-</b> 65.9 62.7 60.3 59.4 56.7 56.3 55.7 55.4 55.1 54.7	YEAR F 132 126 121 119 114 113 112 111 110 110	55 90 64 67 58 71 65 66 42 79	275, 194 87 143 102 106 92 113 103 105 67 125	14 93 88 96 96 78 94 93 100 96	$14.7 \\ 16.0 \\ 12.5 \\ 17.8 \\ 13.7 \\ 19.1 \\ 12.9 \\ 14.8 \\ 18.5 \\ 12.7 \\ $	83.9 84.9 84.9 84.9 82.5 82.5 82.5 8 82.5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	160 160 138 199 185 157 166 168 159
$11 \\ 12 \\ 14 \\ 16 \\ 17 \\ 19 \\ 20$	Funk G-88 Funk G-711 Kansas 2298 Pioneer 339 Funk G-80 Illinois 200 Iowealth TX I K. I. H. 38 Pride of Saline U. S. 35	54.5 53.2 53.1 53.0 53.0 53.0 53.0 53.0 53.0 53.0 53.0 53.2 53.2	$109\\108\\107\\106\\106\\106\\106\\106\\106\\106\\106\\106\\106$	$\begin{array}{c} 66454\\ 57541\\ 6736\\ 336\\ 53\\ 53\\ 63\\ 53\\ 63\\ 53\\ 63\\ 53\\ 63\\ 53\\ 63\\ 53\\ 53\\ 53\\ 53\\ 53\\ 53\\ 53\\ 53\\ 53\\ 5$	$105 \\ 86 \\ 119 \\ 86 \\ 113 \\ 108 \\ 106 \\ 52 \\ 89 \\ 100$	97 96 92 94 96 83 97 91 98	$12.1 \\ 17.4 \\ 15.2 \\ 12.5 \\ 17.2 \\ 15.7 \\ 15.7 \\ 15.8 \\ 16.7 \\ 12.3 \\ 12.3 \\ 12.3 \\ 12.3 \\ 1000 \\ $	83.8 83.8 82.3 86.4 83.9 84.1 85.0 86.2 81.7 86.7	173 158 168 176 137 159 202 189 179 175
$21 \\ 22 \\ 23 \\ 24 \\ 25 \\ 26 \\ 27 \\ 28$	Hyline M-1 Reid-Midland Hybr. Hendriks L Funk G-96 Hendriks L2 Hyline M-2 Cornhusker 30 Pfister 164	52.5 52.4 52.3 52.0 51.7 51.6 51.3 50.9	$105 \\ 105 \\ 104 \\ 104 \\ 103 \\ 103 \\ 102$	51 56 56 56 56 56 56 56 56 56 56 56 56 56	81 89 103 108 89 119 95 110	90 89 91 98 98 98 90	$16.4 \\ 13.8 \\ 15.2 \\ 13.6 \\ 18.8 \\ 13.7 \\ 12.7 \\ 14.8 \\$	83.6 83.8 85.0 83.5 82.7 88.0 85.0 85.5	$150 \\ 184 \\ 199 \\ 189 \\ 180 \\ 200 \\ 252 \\ 154$
	Differences in yield o	f less	than 15.4 in thi	4 bush	els an a	acre ai	re not sig	nifican	t
29 331 334 335 336 338 30 3390	McCurdy 977M Maygold 59 Pioneer 300 Cornhusker 40 Jowealth 25 Pfister 4897 Embro 1020 Funk G-94 Henry Field 135 Edw. Funk 840 Kansas 1585 Funk G-135	50.0 49.9 49.8 49.8 49.8 49.3 49.1 49.0 49.0 48.6 48.5	100 100 100 100 100 99 98 98 98 98 98 98 98 98	74 647 855 851 665 62 74 855 866 62 74 9	$117 \\ 102 \\ 59 \\ 133 \\ 94 \\ 87 \\ 129 \\ 105 \\ 103 \\ 98 \\ 117 \\ 46$	9912 995555 9958 9966 996	13.4 13.2 12.7 17.6 12.2 12.5 17.0 13.1 17.2 13.9 16.9 16.0	86.4 87.0 86.0 82.9 86.9 86.9 86.9 86.9 86.0 86.7 85.1 85.1 85.1 883.9	$\begin{array}{r} 207\\ 190\\ 198\\ 256\\ 210\\ 137\\ 198\\ 175\\ 238\\ 204 \end{array}$
$\begin{array}{r} 41\\ 42\\ 43\\ 445\\ 46\\ 47\\ 49\\ 50 \end{array}$	Reid Nat'l. 130 W Pioneer 332 Maygold 49 McCurdy 124M Kansas 2305 Kansas 1583 Pfister 1897 Iowealth 25A McCurdy 117M Jewett 12	48.3 48.1 47.9 47.8 47.8 47.8 47.3 47.2 47.1 47.0	97 96 96 95 95 95 95 94 94	83 465 774 78 88 87 85 85 85 85 85 85 85 85 85 85 85 85 85	$132 \\ 70 \\ 103 \\ 122 \\ 117 \\ 125 \\ 100 \\ 92 \\ 117 \\ 92$	8955 9956 9966 9964 988 988	$17.0 \\ 13.4 \\ 12.7 \\ 14.8 \\ 18.7 \\ 11.8 \\ 12.9 \\ 14.1 \\ 17.2 \\$	$\begin{array}{c} 81.5\\ 86.5\\ 86.5\\ 87.2\\ 82.1\\ 82.4\\ 86.0\\ 84.8\\ 87.3\\ 82.6\end{array}$	$146\\187\\171\\256\\203\\200\\217\\186\\193\\178$
51255555555555555555555555555555555555	Midland A Maygold 39 Mo. King 103 Embro 1325 Kellogg's KK-77 McCurdy 130M Henry Field 135R Henry Field 135L Iowealth 29A Maygold 50	$\begin{array}{c} 46.9\\ 46.9\\ 46.8\\ 46.7\\ 45.5\\ 45.5\\ 45.4\\ 45.2\\ 45.2\\ 45.2\\ \end{array}$	94 94 94 92 91 91 91 91 91	$\begin{array}{c} 71\\ 55\\ 69\\ 55\\ 63\\ 74\\ 55\\ 68\\ 5\\ 68\\ 5\end{array}$	112 81 86 106 78 103 84 91 102 135	96 94 91 88 93 93 93 87 83	18.2 13.8 14.0 18.3 12.3 12.8 13.3 12.9 12.5	$\begin{array}{c} 81.3\\ 853.7\\ 853.4.8\\ 845.2\\ 854.8\\ 855.4\\ 855.4\\ 855.8\\ 8$	$192 \\ 185 \\ 160 \\ 190 \\ 181 \\ 278 \\ 175 \\ 215 \\ 167 \\$

\*Performance of entry relative to the average of open-pollinated varieties.

TABLE 5. RESULTS, CORN PERFORMANCE TEST, DISTRICT 2, EAST-CENTRAL KANSAS (Continued).

		Ay	cre ield	l I p	Drect lants		e	60	 
Rank i yield	Hybrid or variety	Actual	Rela- tive*	Actua	Rela- tive*	Stand	Moistur	Shellin	Ears per cwi
$\begin{array}{c} 61 \\ 62 \\ 63 \\ 64 \\ 65 \\ 66 \\ 67 \\ 68 \\ 69 \\ 70 \end{array}$	Cornhusker 50 Kansas 1782 Hyline M Funk G-517W McCurdy 123M Pfister 380 Funk G-702 Kansas 2234 Funk G-97 Jewett 6	Bu. 44.5 44.4 44.3 44.0 43.9 43.9 43.9 43.4 43.2 42.3 42.0	Pct. 89 89 89 88 88 88 87 85 84	Pct. 54 49 60 85 74 59 64 76 41 59	Pct. 86 78 95 135 117 94 102 121 65 94	Pct. 95 88 78 84 88 93 79 96 88 80	Pct. 13.9 12.9 14.7 17.0 12.5 12.1 17.9 14.4 12.7 16.5	Pct. 87.0 84.2 85.4 78.0 86.1 86.9 82.7 82.0 85.4 82.7	No. 203 205 258 177 230 217 178 237 272 167
$71 \\ 72 \\ 73 \\ 74 \\ 75 \\ 76 \\ 77 \\ 78 \\ 79 \\ 80$	Kansas 1784 Reid Nat'l. 134 Henry Field 129-1 Trinoka 7 Kansas 16 Henry Field 904 Funk G-523W U. S. 13 Reid Nat'l. 127 Henry Field 129S	$\begin{array}{c} 41.7\\ 41.6\\ 40.4\\ 39.7\\ 39.3\\ 38.4\\ 38.3\\ 37.4\\ 37.4 \end{array}$	84 83 80 797 75 75	58 77 37 46 66 74 69 40	9212211359731051179811063	90 86 91 90 98 98 98 98 91	$12.8 \\ 12.9 \\ 17.8 \\ 16.8 \\ 20.8 \\ 12.5 \\ 19.5 \\ 12.5 \\ 12.8 \\ 12.9 \\ $	$egin{array}{c} 86.1\\ 84.1\\ 83.3\\ 83.5\\ 83.3\\ 83.6\\ 77.9\\ 84.5\\ 84.6\\ 85.3 \end{array}$	210 190 242 191 230 264 205 223 224 276
$^{81}_{82}$	Funk G-723 Kansas 2299	$\substack{\textbf{36.0}\\\textbf{34.3}}$	$\begin{array}{c} 72\\ 69 \end{array}$	$\begin{smallmatrix} 44\\72 \end{smallmatrix}$	$\begin{array}{c} 70 \\ 114 \end{array}$	$\begin{array}{c} 94\\ 96\end{array}$	$\substack{19.6\\15.7}$	$\substack{79.0\\82.1}$	$250 \\ 265$
Av. Av.	of 82 entries of 2 adapted open- ollinated varieties	48.3 49.9	100	63	100	92 97	$\begin{array}{c} 14.8 \\ 17.5 \end{array}$	$\begin{array}{c} 84.3\\ 81.5\end{array}$	196 186
Av.	of 80 hybrids	48.2	97	68	98	91	14.8	84.4	197
$ \begin{array}{c} 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \\ 7 \\ 8 \\ 9 \\ 10 \end{array} $	TV Kellogg's KK-88 Kansas 2275 Reid Midland Hybr. Funk G-80 Iowealth TX I Hyline M-1 Hendriks L U, S. 35 Illinois 200 Hendriks L2	<b>VO-YE</b> 65.7 64.3 63.8 63.4 62.6 61.1 61.1 60.5 60.2 60.1	AR AVE 118 115 114 113 112 109 109 108 108 108	2 <b>HA</b> G 76 95 77 85 83 75 82 81 84 77	2, 1943-1 94 117 95 105 102 93 101 100 104 95	944 92 92 95 93 93 93 93 93 93 93 93 93 93 93 93 93	$13.6 \\ 15.0 \\ 13.8 \\ 15.0 \\ 16.4 \\ 14.6 \\ 12.2 \\ 14.2 \\ 16.7 \\ 16.7 \\ 16.7 \\ 16.7 \\ 16.7 \\ 16.7 \\ 16.7 \\ 10.1 \\ $	83.4 83.8 83.7 83.7 84.5 83.2 83.2 83.5 83.4 83.0	$172 \\ 177 \\ 185 \\ 151 \\ 196 \\ 180 \\ 182 \\ 178 \\ 178 \\ 174 \\ 173 \\$
$11 \\ 12 \\ 13 \\ 14 \\ 15 \\ 16 \\ 17 \\ 18 \\ 19 \\ 20$	Midwest 23 Kansas 1585 K. I. H. 38 Jewett 12 Funk G-94 Pioneer 3000 Pride of Saline Funk G-88 McCurdy 977M Kansas 1583	$\begin{array}{c} 60.0\\ 59.6\\ 59.6\\ 58.6\\ 58.6\\ 58.4\\ 58.2\\ 58.1\\ 57.7\\ 57.5\\ 57.5\\ \end{array}$	$107 \\ 107 \\ 105 \\ 105 \\ 104 \\ 104 \\ 103 \\ 103 \\ 103$	797 677 867 897 867 897 869 889	98 107 81 95 103 85 95 101 106 110	93 93 93 93 93 94 94 94 92	$13.2 \\ 15.2 \\ 13.1 \\ 15.0 \\ 12.9 \\ 12.7 \\ 15.4 \\ 13.4 \\ 13.1 \\ 17.0 $		$180\\204\\195\\173\\204\\197\\186\\175\\204\\202$
21 22 23 24 25 26 27 28 29 30	McCurdy 124M Mo. King 103 Kansas 2234 Iowealth 29A Iowealth 25A Kellogg's KK-77 Maygold 39 Embro 1020 Maygold 49 Henry Field 135R	57.2 56.3 55.7 555.4 54.8 54.8 54.8	$     \begin{array}{r}       102 \\       101 \\       100 \\       99 \\       99 \\       99 \\       98 \\       98 \\       98 \\       98 \\       98 \\       97 \\       97 \\       \end{array} $	8782955127 9877	109 95 109 101 98 93 112 101 95	94 91 95 92 87 98 98 98 92 90	$12.3 \\ 13.3 \\ 14.9 \\ 12.6 \\ 13.4 \\ 12.9 \\ 14.1 \\ 14.9 \\ 12.6 \\ 13.0 \\ 13.0 \\ 13.0 \\ 12.6 \\ 13.0 \\ 12.6 \\ 13.0 \\ 10.0 \\ $	85.2 82.5 84.2 84.0 84.6 84.5 84.1 85.4 85.4	220 163 216 205 181 174 162 175 237
31 32 33 34 35	Reid Nat'l. 134 Maygold 59 Hyline M Kansas 16 Midland A	$54.3 \\ 54.1 \\ 53.9 \\ 53.9 \\ 53.6 \\ 53.6$	97 97 96 596 96	88 82 79 73 85	109 101 198 195	90 88 85 90 95	$\begin{array}{r} 13.2 \\ 12.9 \\ 13.7 \\ 18.5 \\ 16.5 \end{array}$	84.0 85.5 84.4 83.9 82.3	$197 \\ 199 \\ 220 \\ 198 \\ 184$

\*Performance of entry relative to the average of open-pollinated varieties.

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		A y	.cre ield	E p	Grect lants		ę	kr -	
2 1 1	Hybrid or	lal	· * با	[a]	•ب	- 	stur	lin	cwt
Ran	variety	Acti	Rela	Actu	Rels	Stan	Mois	Shel	Earg
<u> </u>		P <sub>11</sub>	Pot	Pat	Pot	Pot	 Pot	Pot	
36	U. S. 13	53.6	96 96	81	100	94 94	12.6	84.0	212
38	McCurdy 130M	52.4 50.0	94 89	83	102 107	86 89	12.5	82.8 83.4	178
40.	Henry Field 129-1	$49.6 \\ 45.4$	89 81	87	$107 \\ 105$	91 85	$12.5 \\ 15.1$	84.2 83.4	$208 \\ 217$
Av. Av.	of 40 entries of 2 adapted open-	57.1		81		92	14.1	84.0	190
po Av.	ollinated varieties of 38 hybrids	55.9 <b>57.2</b>	100 102	81 <b>81</b>	100 100	96 <b>91</b>	16.0 <b>14.0</b>	82.0 <b>84.1</b>	185 <b>190</b>
1	THRE	E-YEA 68 1	R AVE	RAGE	, <b>1942-</b> 1	4 <b>3-19</b>	44 14.6	84 1	
23	Kansas 1585 Reid Midland Hybr.	$67.7 \\ 67.4$	$110 \\ 110$	90 84	105 98	93 89	$15.2 \\ 14.7$	83.0 83.3	
4 5	Illinois 200 Iowealth TX 1	$65.5 \\ 65.4$	$107 \\ 107$	89 88	$\begin{array}{c}103\\102\end{array}$	88 89	$\substack{14.0\\16.2}$	$83.7 \\ 82.8$	
$\frac{6}{7}$	Funk G-88 K. I. H. 38	$\begin{array}{c} 65.0 \\ 65.0 \end{array}$	$106 \\ 106$	87 77	$\begin{smallmatrix}101\\-90\end{smallmatrix}$	92 91	$\substack{\textbf{14.2}\\\textbf{13.0}}$	$83.8 \\ 85.0$	
8 9	U. S. 35 Midwest 23	$\begin{array}{c} 64.7\\ 64.4 \end{array}$	$\begin{smallmatrix}105\\105\end{smallmatrix}$	87 85	$101 \\ 99 \\ 201$	$92 \\ 91 \\ 91 \\ 01 \\ 01 \\ 01 \\ 01 \\ 01 \\ 01$	$12.4 \\ 13.2$	$85.5 \\ 83.9 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $	
10	Jewett 12	64.3	105	92 83	107 97	91 91	16.3 14.5	82.8 82.7	
$12 \\ 13$	Pride of Saline Kansas 2234	$63.8 \\ 63.5$	$\begin{smallmatrix}104\\103\end{smallmatrix}$	$84 \\ 92$	$98 \\ 107$	$96 \\ 93$	$\substack{15.2\\14.9}$	$^{81.4}_{81.8}$	
$\frac{14}{15}$	Funk G-94 Pioneer 300	$63.1 \\ .62.8$	$\begin{smallmatrix}103\\102\end{smallmatrix}$	88 79 -	102 $92$	89 93	$\substack{12.9\\13.0}$	$85.1 \\ 86.2$	
16 17 19	Mo. King 103	62.7 62.0	102	84	106 98	89 90	$13.7 \\ 13.2 \\ 10 \\ 5$	84.1 82.9	
$19 \\ 20$	Iowealth 25A	$61.4 \\ 61.2$	100	86	100	89 87	13.6 14.6	84.0 82.6	
21	Maygold 39	60.8	99	83	97	93	13.7	84.4	
$\frac{22}{23}$	Maygold 49 Kallogg's KK 77	60.5 50.6	, 99 99	88	101	92 91	$12.8 \\ 12.7 \\ 12.0$	84.3 85.1 84.6	
25	Maygold 59 Midland A	59.5 59.5	97 96	88	$102 \\ 102$	89 94	12.8 16.3	85.3	
27	McCurdy 123M	56.7	92 102	91 97	105	90 01	12.8	84.4	
Av. Av.	of 2 adapted open-	61.0	100	86	101	91	15 8	00.8 91 0	
Av.	of 23 hybrids	63.1	103	87	101	. 90 	13.8	84.0	
1	Kansas 1585	EAR # 67.3	111 x 2010	жы, 19 84	41-1942 111	-1943-: 92	1944 16.2	82.7	<b>†1</b> 88
$\frac{2}{3}$	Reid Midland Hybr. Iowealth TX I	$66.9 \\ 65.5$	$\begin{array}{c} 110 \\ 108 \end{array}$	77 80	$\begin{array}{c} 101 \\ 105 \end{array}$	90 90	$\begin{smallmatrix}16.5\\17.4\end{smallmatrix}$	$82.9 \\ 82.6$	181     185
4 5	Funk G-88 Illinois 200	$65.2 \\ 64.9 \\ 0.0 \\ 0.$	$107 \\ 107 $	84 82	$111 \\ 108 \\ 0.0$	92 89	$15.8 \\ 14.9 \\ $	$83.1 \\ 83.2 \\ 0.1 \\ 0.$	$172 \\ 175 $
6 7	Reid Nat'l. 134	63.9	105	77	101	91 90	14.8	84.1 83.4	192
9 10	Funk G-94	$61.7 \\ 61.6$	102	$\frac{14}{80}$	$111 \\ 105$	90 90	14.0 14.4	84.4 84.7	$195 \\ 182$
11	Jewett 6 Diopocon 200	61.5	101	70	92 97	88	17.0	81.1	16.9
$13 \\ 14$	McCurdy 124M	60.7	100	84	111	90 92	13.9 14.0	84.5 83.8	$206 \\ 201$
$15 \\ 16$	Midland A Kellogg's KK-77	59.6	98 96	80 78	$105 \\ 103$	93 86	$17.1 \\ 14.2$	82.2	$174 \\ 182$
17	McCurdy 123M	57.2	94	87 70	114	90 91	14.1	84.1	195 196
Av. Av.	of 2 adapted open-	60 7	` 100	19 76	100	94	16.8	00.0 81 1	100 178
$\frac{A \mathbf{v}_{i}}{\mathbf{v}_{i}}$	of 15 hybrids	62.6	103	80	105	<u>90</u>	15.1	83.6	187

TABLE 5. RESULTS, CORN PERFORMANCE TEST, DISTRICT 2, EAST-CENTRAL KANSAS (Continued).

\*Performance of entry relative to the average of open-pollinated varieties. †This column—average three years, 1941-1943-1944.

TABLE 5. RESULTS, CORN PERFORMANCE TEST, DISTRICT 2, EAST-CENTRAL KANSAS (Concluded).

		A y	ield	p p	Brect lants		re	6.0	<u>ن</u> ہ
Rank ii yield	Hybrid or variety	Actual	Rela- tive*	Actual	Rela- tive*	Stand	Moistu	Shellin	Ears per cw
		Bu.	Pct.	Pct.	Pet.	Pct.	Pct.	Pct.	No.
	FIVE-YEA	R AVJ	ERAGE,	1940-	1941-19	42-194	3-1944	00.0	÷0.40
$     \begin{array}{c}       1 \\       2 \\       3 \\       4 \\       5 \\       6 \\       7 \\       8 \\       9 \\       10 \\     \end{array} $	Illinois 200 K. I. H. 38 Funk G-88 Reid Nat'l. 134 U. S. 35 Funk G-94 U. S. 13 Kellogg's KK-77 Pride of Saline Midland A	55.8 55.0 55.0 53.3 53.2 53.2 53.2 53.2 51.0 51.0 49.8	$     \begin{array}{r}       110 \\       109 \\       106 \\       106 \\       105 \\       103 \\       101 \\       101 \\       99     \end{array} $	855692758878 88888878	$110 \\ 97 \\ 112 \\ 103 \\ 106 \\ 113 \\ 110 \\ 106 \\ 96 \\ 104$	91 929 999 999 992 992 992 992 992 992	$14.6 \\ 14.0 \\ 15.4 \\ 13.9 \\ 13.9 \\ 13.9 \\ 13.9 \\ 16.1 \\ 16.8 $	80.9 82.0 79.9 80.0 83.8 83.0 83.1 82.7 75.0 80.7	+249 227 249 230 252 242 242 242 242 2242 -250
Av.	of 10 entries	52.8		82		90	14.8	81.1	249
Av. po Av.	of 2 adapted open- ollinated varieties of 8 hybrids	50.4 <b>53.4</b>	100 <b>106</b>	77 83	100 <b>108</b>	92 90	16.5 <b>14.4</b>	77.8 <b>81.9</b>	287 <b>239</b>
	SIX-YEAR AV	ERAC	žE, 1939	-1940-	1941-19	42-194	3-1944		
$     \begin{array}{c}       1 \\       2 \\       3 \\       4 \\       5 \\       6 \\       7     \end{array} $	Illinois 200 Funk G-94 U. S. 35 U. S. 13 Kellogg's KK-77 Pride of Saline Midland A	$51.4 \\ 50.7 \\ 49.4 \\ 47.9 \\ 47.6 \\ 46.5 \\ 45.3$	$112 \\ 110 \\ 108 \\ 104 \\ 104 \\ 101 \\ 99$	87 89 885 885 885 885 885 885 885 885 885	$107 \\ 110 \\ 105 \\ 109 \\ 105 \\ 96 \\ 102$	86 89 90 92 86 91 90	$13.6 \\ 13.1 \\ 13.0 \\ 13.1 \\ 13.3 \\ 14.8 \\ 16.2$		\$269 265 271 292 266 332 278
Av.	of 7 entries	48.4		85		89	13.9	81.4	282
Av. po Av.	of 2 adapted open- ollinated varieties of 5 hybrids	45.9 <b>49.4</b>	100 108	81 87	100 107.	91 88	$15.5 \\ 13.2$	78.3 <b>82.6</b>	305 273

\*Performance of entry relative to the average of open-pollinated varieties. †This column-average four years, 1940-1941-1943-1944. \$This column-average for five years, 1939-1940-1941-1943-1944.

TABLE 6. RESULTS, COOPERATIVE TESTS, DISTRICT 2, EASTCENTRAL KANSAS.

Hybrid or	194 13 te	4 sts	1943- 20 te	1944 ests	1942-1944 25 tests		
variety	Yield	Rank	Yield	Rank	Yield	Rank	
	Bu.		Bu.		Bu.		
Kansas 2234 Kansas 1585 Hendriks L Kansas 1583 Funk G-711 Jewett 12 Reid National 134 Illinois 200 Trinoka 7 K. I. H. 38	$\begin{array}{c} 62.2\\ 62.1\\ 59.8\\ 58.8\\ 58.5\\ 58.1\\ 57.4\\ 57.4\\ 56.6\\ 55.7\end{array}$	1 2 3 4 5 6 7 8 9 10	$\begin{array}{c} 63.3\\ 60.5\\ 59.9\\ 58.0\\ \\ \\ 57.4\\ 56.5\\ \\ \\ 54.9\end{array}$	1 2 3 4 5 5 5 7 9	57.7 57.7 55.3	  1  3	
U. S. 13 Pride of Saline Midland A Pioneer 332 Iowealth TX 1 U. S. 35	54.9 53.8 52.6 52.5 51.0 50.9	$     \begin{array}{r}       11 \\       12 \\       13 \\       14 \\       15 \\       16 \\       16 \\       \end{array} $	$55.1 \\ 54.7 \\ 52.9 \\ \\ 51.7$	8 10 11  12	54.7 54.9 52.8 52.3	5 4 6  7	

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Acre Erect yield plants Moisture Ë Shelling Hybrid ث... Ears per cwt Actual or Actual Rark yield tand Rela-tive\* Rela-tive\* variety  $\tilde{\omega}$ Bu. Pct. Pct. Pct. Pct. Pct. Pct. No. **ONE-YEAR RESULTS, 1944** Jewett 453 Kansas 2275 1 88.5 12698 111 100 82.2 17.4143  $\overline{2}$  $124 \\ 121 \\ 117$ 87.2  $19.0 \\ 23.0$ 99 113 100 83.3 151 3 Iowealth TX 1  $\frac{85.4}{82.0}$  $179 \\ 160$ 92 105100 82.7 4 Kansas 2299 <u>98</u> 111 100 19.582.9 5 Kansas 1583 81.5 116 100 114 100 21.381.4 1556 Funk G-131 80.3 91 10319.8 20.0 18.0 115100 81.9 163  $114 \\ 113$ Kansas 2305 79.8 98 111 ĩŏŏ 80.2 139 8 Funk G-80 Kansas 2298 79.6 99 113 100 84.4 151 100 q 78.411299 113 18.5 80.5 13210 Embro 1001 78.1111 81 92 100 16.0 83.0 180 11 Hendriks L2 77.5 93 110 106 99 21.582.4 169 Illinois 200 Edw. Funk 1005 12 77.477.1 $110 \\ 110$ 98 111 100 17.884.7 189 13 88 95 100 100 17.983.0 166 Funk G-150 Funk G-711  $76.9 \\ 76.6$ 14 109 109 108 100 15.782.3 188 15 89 100 101 23.8 78.0 160 . 16Funk G-135 76.3109 95 108 100 15.883 7 16417 Hendriks L 75.9 108 93 106 100 19.0 81.8 150 Differences in yield of less than 12.6 bushels an acre are not significant in this test. Kellogg's KK-88 Funk G-88 Funk G-96 18  $108 \\ 106$ 75 7 99 113 100  $17.3 \\ 20.2$ 83.2 17274.774.6  $\bar{1}\bar{9}$ 109 96 100 82.2 158 20106 99 ĩŏŏ 113 16.182.7174 21 Kansas 1781 74.1105 99 113 100 17614.485.0 Jewett 12 Pride of Saline Kansas 1585 Kansas 16 22 74.174.173.873.873.7105 90 102 100 18.6 82.7 160 23 105 83 94100 20.1 79,1156  $\frac{1}{24}$ 105 99 113 100 21.6 82.4 148 105 **91** 103 100 23.178.6157  $\overline{26}$ Funk G-517W Henry Field 135L 105 99 100 11317.8 77.0 154  $\overline{2}$ 72.5 103 98 111 100 14.985.2175 $\frac{1}{28}$ Kansas 1783 72.4103 99 100  $15.6 \\ 19.8$ 85.5 155 Trinoka 7 Funk G-702 72.1 103 89 101 100 145 **3**0 71.7 102 96 109 100 23.4 79.6 139 31 Maygold 59 71.6102 0.0 113 99 13.6 86.5 169 Maygold 39 Reid-Midland hybrid 32 $71.6 \\ 70.6$  $10\bar{2}$ 98 111 99 15.286.8  $159 \\ 174$  $\frac{3}{3}$ 34 100 97 100 110 17.482.1Kansas 1784 Kansas 2234 70.5 70.5 100 100 114 100 84.0 16.3 182 $\frac{1}{21.0}$ 16.3 35100 97 110 100 73.3148 36 Funk G-97 70.3 100 96 109 100  $182 \\ 162 \\ 189$  $84.4 \\ 82.5$ Embro 1325 Funk G-98 Pfister 164 Pfister 1897 37 · 69.8 99 94 107 100 19.3 38 69.3 99 99 113 100 15.4 82.9 39 69.29.8 99 11399 15.8 86.8 180 40 69.0 98 98 111 99 14.8 84.5 198 41 . S. 13 68.7 98 98 111 100 15.686.0 180 Kellogg's KK-77 McCurdy 123M Pfister 4897 4268.2 97 99 113 100 16.9  $\frac{86.4}{86.3}$ 1674368.2 97 94 107 īŏŏ 14.8 185 44  $\bar{97}$ 99 113 97 14.2 85.2 191  $\hat{45}$ Midwest 23 Kansas 1782 Pioneer 300 96 96 109 99  $16.1 \\ 17.4$ 85.0 171 46 96 100 95108 88.6 159  $\overline{47}$ 96 95 108100 15.3 $\frac{82.9}{85.7}$ 188 McCurdy 120 Henry Field 135 Reid Nat'l. 134  $\overline{48}$ 96 67.4 98 100  $15.6 \\ 17.0$ 111 181  $4\dot{9}$ 67.496 94 107 100 84.115350 66.9 95 92105 13.8 99 86.4 21951 Midland A 66.4 95 93 106 100 19.7 81.2 143 Pioneer 339 Funk G-92 U. S. 35 McCurdy 130M  $52 \\ 53$ 66.2 9498 111 100 84.4 15.1209 66.2 94 92 105 100 16.2 84.4 192 54 55 65.8 94 93 92 96 109 99 14.685.4 163 99 65.4 113100 19.1 82.7 85.3 85.2 83.3 170 56 Funk G-94 98 64.5 $\frac{99}{97}$  $15.1 \\ 14.7$ 199 111 57 Maygold 49 64.2 91 97 110 Kellogg's KK-99A Mo. King 103 58 **9**9 63.9 91 95 108 14.6 214 59 63.4 .90 96 109 100 15.2 88.9 203

TABLE 7. RESULTS, CORN PERFORMANCE TEST, DISTRICT 3, SOUTH-EASTERN KANSAS.

\*Performance of entry relative to the average of open-pollinated varieties.



TABLE 7. RESULTS, CORN PERFORMANCE TEST, DISTRICT 3, SOUTH-EASTERN KANSAS (Continued).

		A y	cre ield	E pl	rect ants		е	δņ	 ن
Rank ir yield	Hybrid or variety	Actual	Rela- tive*	Actual	Rela- tive*	Stand	Moistu	Shellin	Ears per cw
60 61 62 63 64 65 66 67 68 69	K. I. H. 38 Kansas 1517 Pfister 380 Henry Field 135R Pioneer 332 Embro 1020 Edw. Funk 840 Reid Nat'l. 129 McCurdy 95M Maygold 50	$\begin{array}{c} \text{Bu.} \\ \textbf{62.8} \\ \textbf{62.6} \\ \textbf{62.4} \\ \textbf{62.4} \\ \textbf{61.5} \\ \textbf{61.4} \\ \textbf{60.1} \\ \textbf{59.5} \\ \textbf{53.7} \\ \textbf{53.4} \end{array}$	Pct. 89 89 89 89 89 85 85 76 76	Pct. 91 95 99 94 97 99 96 97 100 95	Pct. 103 108 113 107 110 113 109 110 114 108	Pct. 97 88 98 99 99 100 97 100 96 99	Pct. 14.1 26.0 15.0 15.4 17.1 17.5 16.6 16.8 15.5	Pct. 84.6 79.3 85.0 86.4 85.6 82.0 85.1 84.8 80.7 83.2	No. 180 147 195 203 202 229 182 164 279 238
Av. Ay.	of 69 entries of 2 adapted open- ollingted varieties	70.7	100	96 88	100	99 100	17.4 19.9	83.3 80.2	175 150
Av.	of 67 hybrids	70.8	101	97	110	99	17.8	83.3	175
1234567890 10	TWO Iowealth TX 1 Funk G-88 Kansas 1583 Illinois 200 Funk G-135 Funk G-150 Funk G-80 Kansas 2234 Kansas 1585 Jewett 12	- YEAF 64.2 63.4 63.2 62.7 62.0 61.5 61.2 61.1 60.5 59.6	<b>AVER</b> 114 113 112 111 110 109 108 108 107 106	AGE, 94 97 98 97 96 96 96 98 98 99 86	<b>1942 at</b> 104 108 109 108 107 107 107 110 109 110 96	nd 194 86 93 91 93 91 91 90 93 90 89 89	14 21.2 20.0 20.3 16.7 17.1 16.1 17.0 20.1 20.7 17.7 10.4	81.6 81.7 81.5 82.9 82.5 83.8 75.3 82.5 81.3 82.5	
$11 \\ 12 \\ 13 \\ 14 \\ 15 \\ 16 \\ 17 \\ 18 \\ 19 \\ 20$	Pride of Saline Reid-Midland hybrid U. S. 13 McCurdy 123M U. S. 35 Midland A Pioneer 300 K. I. H. 38 Mo. King 103 Pioneer 332	58.58 56.20 555.4.44 51.9 51.1 51.1	$     \begin{array}{r}       104 \\       101 \\       98 \\       97 \\       96 \\       96 \\       94 \\       92 \\       90 \\       91 \\     \end{array} $	86 96 95 95 95 96 88 97 88 97	$\begin{array}{c} 96\\ 107\\ 104\\ 106\\ 106\\ 106\\ 106\\ 107\\ 98\\ 109\\ 108\\ \end{array}$	899230 9939 99898 89889 89889 889	$19.4 \\ 15.4 \\ 15.3 \\ 15.0 \\ 19.7 \\ 15.2 \\ 14.7 \\ 15.7 \\ 15.4 \\ $	80.2 80.3 85.3 84.7 84.7 84.0 84.7 85.4 85.6	,
Av. Av.	of 20 entries of 2 adapted open- ollinated varieties	58.0 56.5	100	- 95 - 90	100	90 89	17.6 $19.6$	82.6 80.0	
Av.	of 18 hybrids	58.2	103	96	107 041 104	90 9 ond	17.4	04.0	
$     \begin{array}{c}       1 \\       2 \\       3 \\       4 \\       5 \\       6 \\       7 \\       8 \\       9 \\       10 \end{array} $	THREE- Iowealth TX 1 Jewett 12 Funk G-88 Funk G-150 Illinois 200 Funk G-135 Kansas 1585 McCurdy 123M Pride of Saline Reid-Midland hybrid	49.6 48.6 48.5 48.2 47.9 47.8 46.7 44.8 44.5 44.1	113 110 110 109 109 109 106 102 101 100	76 70 85 83 84 84 80 87 70 80	$\begin{array}{c} 100\\ 92\\ 112\\ 109\\ 111\\ 111\\ 105\\ 115\\ 92\\ 105\\ \end{array}$	80 81 84 85 85 83 80 87 81 84	$19.9 \\ 18.3 \\ 19.9 \\ 17.0 \\ 16.9 \\ 17.6 \\ 19.8 \\ 15.6 \\ 19.3 \\ 18.9 \\ 18.9$	81.7 81.5 81.0 82.6 82.3 81.2 81.2 81.2 81.2 81.2 81.2 82.3 81.2 81.2 82.6 82.3 81.2 81.2 82.6 82.3 81.2 81.2 82.6 82.3 81.2 81.2 82.6 82.3 81.2 81.2 82.6 82.3 81.2 81.2 82.6 82.3 81.2 81.2 81.2 82.3 81.2 81.2 81.2 82.3 81.2	†248 190 224 256 238 211 240 232 248
$11 \\ 12 \\ 13 \\ 14 \\ 15 \\ 16$	U. S. 13 Midland A U. S. 35 Pioneer 300 K. I. H. 38 Pioneer 332	$\begin{array}{r} 43.9 \\ 43.6 \\ 41.9 \\ 41.1 \\ 41.1 \\ 31.5 \end{array}$	$100 \\ 99 \\ 95 \\ 93 \\ 93 \\ 71$	90 82 87 90 77 91	$     \begin{array}{r}       118 \\       108 \\       115 \\       118 \\       101 \\       120     \end{array} $	87 83 83 80 83	$15.6 \\ 19.4 \\ 15.8 \\ 16.3 \\ 15.2 \\ 15.6 \\ $	$83.6 \\ 81.0 \\ 83.5 \\ 82.3 \\ 83.8 \\ 84.3 \\ 84.3 \\ $	$258 \\ 206 \\ 268 \\ 282 \\ 264 \\ 254$
Av. Av. p Av.	of 16 entries of 2 adapted open- ollinated varieties <b>of 14 hybrids</b>	45.2 44.1 <b>45.4</b>	100 <b>103</b>	82 76 <b>83</b>	100 <b>109</b>	83 82 83	17.6 19.3 <b>17.3</b>	82.0 79.3 <b>82.4</b>	242 219 <b>245</b>

\*Performance of entry relative to the average of open-pollinated varieties. †This column — average 2-years, 1941 and 1944.

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a.	TTrabald	A y	cre ield	P P	lrect lants		Ð	buiii 	
Rank i yield	or variety,	Actual	Rela- tive*	Actual	Rela- tive*	Stand	Moistui		Ears per cw
		Bu.	Pet.	Pet.	Pct.	Pct.	Pct.	Pet.	No.
	FOUR-YE.	AR AV	ERAGE	, 1940-	1941-19	42 and	l 1944		
$     \begin{array}{c}       1 \\       2 \\       3 \\       4 \\       5 \\       6 \\       7 \\       8     \end{array} $	Funk G-88 Illinois 200 Funk G-135 U. S. 13 Pride of Saline U. S. 35 Midland A Pioneer 332	$\begin{array}{r} 47.1 \\ 45.9 \\ 45.5 \\ 43.4 \\ 42.9 \\ 42.8 \\ 41.7 \\ 40.6 \end{array}$	$111 \\ 109 \\ 108 \\ 103 \\ 101 \\ 101 \\ 99 \\ 96$	88 87 85 91 73 89 84 93	$     \begin{array}{r}       111 \\       110 \\       108 \\       115 \\       92 \\       113 \\       106 \\       118 \\     \end{array} $	86 83 86 81 82 82 82	$18.1 \\ 15.8 \\ 16.4 \\ 15.0 \\ 17.7 \\ 15.0 \\ 17.8 \\ 14.9 \\$		253 268 264 278 252 284 232 270
Av.	of 8 entries	43.7		86		83	16.4	81.9	263
po Av.	llinated varieties of 6 hybrids	42.3 <b>44.2</b>	$\begin{array}{c} 100 \\ \textbf{105} \end{array}$	79 <b>89</b>	100 <b>113</b>	82 84	17.8 <b>15.9</b>	79.7 <b>82.7</b>	242 <b>269</b>

TABLE 7. RESULTS, CORN PERFORMANCE TEST, DISTRICT 3, SOUTH-EASTERN KANSAS (Concluded).

\*Performance of entry relative to the average of open-pollinated varieties. This column—average 3-years, 1940-1941 and 1944.

TABLE 8. RESULTS, COOPERATIVE TESTS, DISTRICT 3, SOUTHEAST-ERN KANSAS.

Hybrid or	19 5 te	44 ests	1943-1944 9 tests		1941-1944 23 tests	
variety	Yield	Rank	Yield	Rank	Yield	Rank
	Bu,		Bu.			
Kansas 2234 Kansas 1585	$46.5 \\ 43.8$	$\frac{1}{2}$	$45.6 \\ 41.8$	$\frac{1}{2}$		
Trinoka 7 Kansas 1583	$43.6 \\ 42.2$	3 4	41.5		••••••	
Illinois 200	$\substack{41.3\\41.3}$	. 5 5	$39.4 \\ 40.3$	6 5	38.6	2
Funk G-711	41.1 40.2	8	40.6	4	39.8	1
K. I. H. 38	39.4	. 10	$37.7 \\ 39.4$	6	37.2	3
Jewett 12 Pride of Saline U. S. 35 U. S. 13	$38.4 \\ 37.8 \\ 37.7 \\ 37.4$	$11 \\ 12 \\ 13 \\ 14$	$36.2 \\ 37.5 \\ 37.7$	10 9 7	$37.1 \\ 33.7 \\ 35.6 \\$	 6 5
Pioneer 300 Iowealth TX 1	$35.5 \\ 34.8$	15 16				



TABLE 9. RESULTS, BELLEVILLE EXPERIMENT FIELD, DISTRICT 4, NORTHCENTRAL KANSAS.

		A y	ield	Er pla	ect ints		Hei	ght	e
Rank iı yield	Hybrid or variety	Actual	Rela- tive*	Actual	Rela- tive*	Stand	Plant	Ear	Moistun
		Bu.	Pet.	Pet.	Pet.	Pet.	Ft.	In.	Pet.
123456789010	Kansas 2234 Kansas 16 Kansas 1639 Embro 1325 Kansas 2298 Kansas 2232 Kansas 1648 Kansas 1583 Kansas 2299 Funk G-88	$\begin{array}{c} 77.8 \\ 74.7 \\ 74.6 \\ 73.4 \\ 73.1 \\ 72.3 \\ 72.0 \\ 71.4 \\ 70.9 \end{array}$	$147 \\ 141 \\ 141 \\ 139 \\ 138 \\ 138 \\ 138 \\ 137 \\ 136 \\ 135 \\ 134$	$\begin{array}{c} 99\\ 81\\ 100\\ 96\\ 95\\ 89\\ 90\\ 97\\ 91\\ 88\end{array}$	$\begin{array}{c} 138\\ 113\\ 139\\ 133\\ 132\\ 124\\ 125\\ 135\\ 126\\ 122 \end{array}$	100 99 96 99 98 100 95 98 96 96	89897 9888 9888 9888 9888 955	$\begin{array}{c} 40\\ 46\\ 40\\ 48\\ 44\\ 42\\ 46\\ 38\\ 48\\ 48\end{array}$	$19.6 \\ 21.0 \\ 16.1 \\ 17.9 \\ 18.2 \\ 18.3 \\ 18.4 \\ 18.3 \\ 17.9 \\ 19.9 \\$
$11 \\ 12 \\ 13 \\ 14 \\ 15 \\ 16 \\ 17$	Kansas 15 Kansas 2275 Kansas 1582 Kansas 1517 Reid Nat'l. 129 Funk G-711 Kansas 1679	$\begin{array}{c} 70.7 \\ 70.1 \\ 69.7 \\ 69.5 \\ 68.4 \\ 68.3 \\ 68.0 \end{array}$	$134 \\ 133 \\ 132 \\ 132 \\ 130 \\ 129 \\ 120 $	91 96 80 90 87 90 83	$126 \\ 133 \\ 111 \\ 125 \\ 121 \\ 125 \\ 121 \\ 125 \\ 115 \\ 115 \\ 126 \\ 115 $	97 99 96 98 100 100 96	8.8 8.7 9.0 9.0 9.0 8.5	$     \begin{array}{r}       40 \\       40 \\       44 \\       48 \\       38 \\       46 \\       36 \\     \end{array} $	$17.1 \\ 16.5 \\ 20.2 \\ 21.4 \\ 17.3 \\ 25.5 \\ 18.9 \\$
	Differences in yield	of less	than 9.9 in this	bushel s test.	ls an ac	re are	e not sig	nifican	t
$18 \\ 19 \\ 20$	Kansas 2305 Jewett 6 Jewett 453	$\begin{array}{c} 67.8 \\ 67.7 \\ 67.2 \end{array}$	$128 \\ 128 \\ 127$	$94 \\ 66 \\ 92$	$\substack{131\\92\\128}$	98 99 98	8.8 8.8 9.0	$\begin{array}{c} 44\\ 44\\ 39\end{array}$	$17.2 \\ 18.2 \\ 19.4$
21 223 24 25 278 29 30	Kansas 1585 Funk G-80 Jewett 12 Hyline M Kansas 1782 Iowealth 25 Kansas 1643 Cornhusker 30 Kansas 1788 Mo. King 103	$\begin{array}{c} 66.8\\ 66.6\\ 66.1\\ 65.5\\ 65.5\\ 65.4\\ 65.2\\ 64.7\\ 64.5\\ \end{array}$	$127 \\ 126 \\ 125 \\ 124 \\ 124 \\ 123 \\ 123 \\ 123 \\ 123 \\ 122 \\$	$90 \\ 97 \\ 72 \\ 99 \\ 90 \\ 91 \\ 92 \\ 92 \\ 100 \\ 86$	$125 \\ 135 \\ 100 \\ 138 \\ 125 \\ 126 \\ 128 \\ 128 \\ 139 \\ 119 \\$	99 100 98 98 97 99 93 99 95 100	9.2 8.7 8.0 9.0 9.2 8.7 8.0 9.2 8.7 8.0 9.2	$\begin{array}{r} 46\\ 42\\ 46\\ 42\\ 42\\ 42\\ 44\\ 44\\ 40\\ 38 \end{array}$	$19.9 \\ 17.0 \\ 17.9 \\ 16.5 \\ 15.8 \\ 17.2 \\ 17.7 \\ 17.6 \\ 17.4 \\ 16.9 \\ 19.9 \\ 19.9 \\ 10.9 \\ $
31 333 35 35 35 35 35 35 35 35 35 35 35 35	Kansas 1597 Funk G-150 K. I. H. 38 Embro 1001 Cornhusker 40 Pioneer 300 Maygold 59 Henry Field 135 Pioneer 339 Iowealth 25A	$\begin{array}{c} 64.4\\ 63.4\\ 62.5\\ 62.2\\ 62.2\\ 61.9\\ 61.8\\ 61.6\end{array}$	$122 \\ 120 \\ 120 \\ 118 \\ 118 \\ 118 \\ 118 \\ 117 $	92 797 81 87 84 88 88 88 84	$128\\110\\121\\113\\121\\117\\149\\122\\114\\131$	94 98 99 99 99 97 97 <b>98</b> 97	98.77 88.07 89.77 89.77 89.85 89.85 89.85 89.85 80.85	46 46 46 38 38 42 48 <b>38</b> 42 48 <b>38</b> 40	22.7 18.0 17.9 18.0 18.3 16.2 16.1 18.3 15.3 16.8
$\begin{array}{r} 41 \\ 423 \\ 445 \\ 445 \\ 445 \\ 445 \\ 450 \\ 450 \\ 50 \end{array}$	Pioneer 332 Pfister 164 Illinois 200 Kellogg's KK-88 Iowealth 29A Reid Nat'l. 130W Kansas 1516 Midland A Kellogg's KK-77 McCurdy 117M	61.5 61.5 61.4 60.7 60.3 60.3 60.0 59.8 59.6	$116 \\ 116 \\ 116 \\ 116 \\ 115 \\ 114 \\ 114 \\ 114 \\ 113 $	91 91 90 87 95 96 85 74 90 84	$126 \\ 126 \\ 125 \\ 121 \\ 132 \\ 133 \\ 118 \\ 103 \\ 125 \\ 117 \\$	$     \begin{array}{r}       100 \\       98 \\       97 \\       99 \\       98 \\       100 \\       98 \\       95 \\       96 \\       94 \\     \end{array} $	8.7 9.0 9.0 8.8 9.0 8.7 8.7 8.5	42 36 42 42 42 42 48 42 48 42 36 38	$\begin{array}{c} 17.1 \\ 16.9 \\ 17.3 \\ 16.8 \\ 17.0 \\ 18.1 \\ 21.9 \\ 18.3 \\ 16.0 \\ 15.3 \end{array}$
55555555555555555555555555555555555555	Kansas 1104 Maygold 39 Kansas 1781 Kansas 11 Midwest 23 U. S. 35 Kansas 1659 Hyline M-1 Kansas 1784 Pfister 1897	599.22 599.99 5588.86 55888.88 55555 55555 55555 55555 55555 55555 5555	$112 \\ 112 \\ 112 \\ 112 \\ 111 \\ 111 \\ 111 \\ 111 \\ 110 \\ 110 \\ 109$	85 83 90 80 80 80 80 94 95 83	$118 \\ 115 \\ 125 \\ 133 \\ 111 \\ 117 \\ 135 \\ 131 \\ 132 \\ 115$	93 98 97 96 100 98 99 98 98	20307958 38888 88888 88888 88888 88888 88888 88888	36 40 38 40 36 40 40 36 36	$19.1 \\ 16.8 \\ 15.5 \\ 18.0 \\ 17.0 \\ 16.2 \\ 16.0 \\ 17.6 \\ 15.6 \\ 16.1 \\ $

\*Performance of entry relative to the average of open-pollinated varieties.

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Historical Document

TABLE 9. RESULTS, BELLEVILLE EXPERIMENT FIELD, DISTRICT 4, NORTHCENTRAL KANSAS (Continued).

·		A	cre	Er	ect	<u> </u>	ΗA	ight	
in	Hybrid	y	ield	pla	nts				ure
Rank yield	or variety	Actua	Rela- tive*	Actua	Rela- tive*	Stand	Plant	Ear	Moist
66666666667890 1234567890 1	Kansas 2216 Hyline M-2 Kansas 1617 Pfister 4897 Embro 1020 Reid Vellow Dent Reid Nat'l. 127 Kellogg's KK-99A Henry Field 904 McCurdy 118M Edw. Funk 840 Henry Field 129-1 U. S. 13 Pride of Saline Cornhusker 123 McCurdy 112M Maygold 49 Pfister 380 Maygold 50 Hays Golden Reid Nat'l. 134	Bu. 577.11 577.04 566.42 566.25 566.25 566.25 557.00 556.25 556.25 556.25 557.00 556.25 556.25 557.00 556.25 557.00 556.25 556.25 557.00 556.25 557.00 556.25 557.00 556.25 557.00 556.25 557.00 556.25 557.00 556.25 557.00 556.25 557.00 556.25 557.00 556.25 557.00 556.25 557.00 556.25 557.00 556.25 557.00 556.25 557.00 557.0	Pct. 108 108 108 107 107 106 106 106 106 106 106 102 102 102 102 102 95 94 97 79 72	Pct. 86 86 92 92 91 85 81 89 81 89 83 72 94 81 83 54	Pet. 119 148 94 133 128 99 132 129 113 126 122 100 131 124 123 113 126 122 100 75	Pct. 99 98 98 93 97 97 96 96 96 96 96 96 96 97 97 98 97 98 8 97 98 8	Ft. 8.57 8.72 9.25 8.87 8.72 8.87 8.55 8.87 8.55 8.57 8.55 8.82 7.2 8.55 8.82 7.2 8.25 8.25 8.27 8.25 8.27 8.25 8.27 8.25 8.27 8.25 8.27 8.25 8.27 8.25 8.27 8.25 8.27 8.25 8.27 8.25 8.27 8.25 8.27 8.25 8.27 8.25 8.27 8.25 8.27 8.25 8.27 8.25 8.27 8.25 8.27 8.25 8.25 8.25 8.25 8.25 8.25 8.25 8.25	In. 40 36 42 36 34 44 38 44 38 36 38 36 36 32 32 34 34 34 34 34 34 34	Pct. 19.3 16.2 17.8 16.2 17.8 16.2 17.8 16.2 17.8 16.2 17.8 16.2 17.8 16.2 18.10 16.2 15.8 16.9 15.8 16.8 16.8 16.8 16.8 16.8 16.8 16.8 16
Av.	81 entries	61.7	12	88	10	97	8.7	40	17.6
AV. Va AV.	of 4 open-pollinated arieties of 77 hybrids	52.8 62.2	100 118	72 88	100 122	93 97	8.4 8.7	40 <b>40</b>	18.0 17.5
	TW	VO-YF	AR AVI	ERAGE	, 1943-:	1944			
$     \begin{array}{c}       1 \\       2 \\       3 \\       4 \\       5 \\       6 \\       7 \\       8 \\       9 \\       10 \end{array} $	Kansas 16 Kansas 1639 Kansas 2275 Kansas 2234 Kansas 1597 Kansas 1648 Kansas 1648 Kansas 2232 Kansas 1583 Funk G-88	56.4 56.0 53.8 52.5 52.4 52.4 52.2 52.2 52.2 52.1 51.9	144 142 137 133 133 133 133 133 133 133	7951 9888 78888 78888 78888 78888 78888 7	$103 \\ 134 \\ 114 \\ 120 \\ 118 \\ 107 \\ 117 \\ 124 \\ 110$	99 98 98 97 93 93 95 100 95 95	8.5 8.2 8.1 7.9 8.8 7.9 8.0 8.0 8.3 8.4	$\begin{array}{r} 44\\ 39\\ 41\\ 40\\ 44\\ 36\\ 42\\ 45\\ 42\\ 45\\ 42\\ 42\\ 5\\ 42\\ 42\\ 5\\ 42\\ 42\\ 5\\ 42\\ 42\\ 5\\ 42\\ 42\\ 5\\ 42\\ 42\\ 5\\ 42\\ 42\\ 5\\ 42\\ 42\\ 5\\ 42\\ 42\\ 5\\ 42\\ 42\\ 5\\ 42\\ 42\\ 5\\ 42\\ 42\\ 5\\ 42\\ 42\\ 5\\ 42\\ 42\\ 42\\ 5\\ 42\\ 42\\ 42\\ 42\\ 42\\ 42\\ 42\\ 42\\ 42\\ 42$	$\begin{array}{c} 20.3 \\ 17.6 \\ 18.4 \\ 20.3 \\ 24.5 \\ 18.0 \\ 18.2 \\ 20.0 \\ 23.3 \\ 18.9 \end{array}$
$11 \\ 12 \\ 13 \\ 14 \\ 15 \\ 16 \\ 17 \\ 18 \\ 19 \\ 20$	Jewett 12 Mo. King 103 Pioneer 300 Illinois 200 Funk G-80 Kansas 1585 K. I. H. 38 Kansas 15 Kansas 15 Kansas 1617	51.1 49.9 49.6 49.3 48.7 48.5 48.4 48.2 47.2	130 127 126 125 125 124 123 123 123 123	68 877 81 81 85 75	$\begin{array}{r} 96\\ 124\\ 108\\ 121\\ 114\\ 114\\ 120\\ 120\\ 106 \end{array}$	99 100 95 98 94 93 99 98 99 98 99 98	8.2 7.9 8.1 8.4 8.0 8.4 8.0 8.4 8.1 8.1 8.2	44 359 43 41 44 42 40 42 41	19.0 17.5 16.1 18.3 17.0 21.1 16.2 17.4 23.6 17.7
$21 \\ 22 \\ 23 \\ 24 \\ 25 \\ 26 \\ 27 \\ 28 \\ 29 \\ 30 \\ 30 \\ 30 \\ 30 \\ 30 \\ 30 \\ 30 \\ 3$	Kellogg's KK-77 U. S. 13 Kansas 1643 Kansas 11 Kansas 1516 Kansas 1516 Kansas 2216 Kansas 1104 Midland A U. S. 35	$\begin{array}{r} 46.8\\ 46.8\\ 46.2\\ 45.7\\ 45.0\\ 44.9\\ 44.9\\ 44.1\\ 43.9\end{array}$	119 119 118 118 116 115 114 114 112 112	843 886 978 793 79 79	118 117 118 121 135 110 123 125 103 111	97 97 92 92 92 92 92 92 92 92 92 92 97	8.2 8.1 8.0 7.5 7.9 8.9 7.8 7.7 8.0 7.8	38 36 42 36 40 44 40 <b>36</b> 40 <b>36</b> 40 38	$16.0 \\ 15.3 \\ 19.4 \\ 18.4 \\ 15.0 \\ 24.4 \\ 22.5 \\ 20.4 \\ 19.9 \\ 16.0 \\ 16.0 \\ 15.0 \\ 19.9 \\ 16.0 \\ 10.0 \\ $
$31 \\ 32 \\ 33$	Pride of Saline Hays Golden Reid Nat'l: 134	$38.8 \\ 35.0 \\ 33.9$	99 89 86	$70 \\ 70 \\ 65$	99 99 92	92 92 97	$7.9 \\ 6.9 \\ 8.1$	$\begin{array}{c} 41\\32\\40\end{array}$	$20.6 \\ 15.9 \\ 19.1$
Av.	of 33 entries	48.2		81		95	8.1	41	19.0
AV. p Av.	or a adapted open- ollinated varieties of 30 hybrids	39.3 <b>48.9</b>	$\begin{array}{c} 100 \\ 124 \end{array}$	$^{71}_{82}$	$\begin{array}{c} 100 \\ 115 \end{array}$	92 95	7.6 <b>8.1</b>	38 41	18.8 <b>19.0</b>

\*Performance of entry relative to the average of open-pollinated varieties.



		A yi	cre eld	Er pla	rect		He	ight	e
Rank ii yield	Hybrid or variety	Actual	Rela- tive*	Actual	Rela- tive*	Stand	Plant	Ear	Moistur
	······································	Bu.	Pct.	Pct.	Pet.	Pct.	Ft.	In.	Pct.
	THRE	E-YEA	R AVE	RAGE,	1942-19	43-1944	1		
$     \begin{array}{c}       1 \\       2 \\       3 \\       4 \\       5 \\       6 \\       7 \\       8 \\       9 \\       10 \\     \end{array} $	Kansas 16 Kansas 1648 Kansas 1639 Kansas 2234 Kansas 2232 Funk G-88 Jewett 12 Kansas 15 Illinois 200	55.0 54.3 54.2 54.2 51.3 50.2 50.2 48.3 48.3	$149\\147\\146\\146\\139\\138\\136\\135\\132\\132\\131$	78 95 90 85 71 88 88 88	$\begin{array}{c} 107\\ 122\\ 130\\ 123\\ 119\\ 116\\ 97\\ 121\\ 121\\ 121\\ 118\\ \end{array}$	975 995 995 995 995 995 995 995 995 995	$\begin{array}{c} 8.1 \\ 7.7 \\ 7.9 \\ 7.6 \\ 7.8 \\ 8.2 \\ 7.7 \\ 7.8 \\ 7.6 \\ 8.0 \end{array}$	$\begin{array}{c} 41\\ 39\\ 35\\ 38\\ 40\\ 42\\ 40\\ 39\\ 39\end{array}$	$21.5 \\ 18.7 \\ 18.7 \\ 21.7 \\ 22.2 \\ 20.9 \\ 19.8 \\ 24.0 \\ 19.6 \\ 19.5 $
$11 \\ 12 \\ 13 \\ 14 \\ 15 \\ 16 \\ 17 \\ 18 \\ 19 \\ 20$	Kansas 1643 Kansas 1516 Kansas 1216 K. I. H. 38 Kansas 11 Pioneer 300 Kellogg's KK-77 U. S. 13 U. S. 35	$\begin{array}{r} 47.9\\ 47.6\\ 46.5\\ 45.6\\ 45.4\\ 45.4\\ 45.8\\ 44.8\\ 44.8\\ 42.5\end{array}$	$129\\129\\126\\126\\123\\122\\122\\121\\121\\121\\115$	88 84 91 88 80 86 79 84 84 83	121 115 125 121 110 118 108 115 115 114	953 999 993 995 995 986	7.8 8.6 7.5 7.8 7.8 7.8 7.8 7.8 7.8 7.8 7.5	39 424 37 39 336 366 366 355	$\begin{array}{c} 20.4\\ 25.1\\ 21.3\\ 23.4\\ 17.6\\ 19.2\\ 17.6\\ 15.5\\ 16.8\\ 16.4 \end{array}$
$21 \\ 22$	Pride of Saline Hays Golden	$\substack{38.4\\35.6}$	$104 \\ 96$	$\begin{array}{c} 74\\71\end{array}$	$\substack{101\\97}$	$\begin{array}{c} 91\\ 93\end{array}$	$\begin{array}{c} 7.8 \\ 6.7 \end{array}$	$39 \\ 29$	$\substack{\substack{22.3\\17.7}}$
Av.	of 22 entries	47.7		84		96	7.7	36	20.0
AV. p(	of 2 adapted open- ollinated varieties of 20 hybrids	37.0 <b>48.7</b>	100 <b>132</b>	73 85	100 <b>116</b>	92 <b>96</b>	7.2 7.8	34 <b>36</b>	20.0 <b>20.0</b>

## TABLE 9. RESULTS, BELLEVILLE EXPERIMENT FIELD, DISTRICT 4, NORTHCENTRAL KANSAS (Concluded).

\*Performance of entry relative to the average of open-pollinated varieties.

#### TABLE 10. RESULTS, COOPERATIVE TESTS, DISTRICT 4, NORTHCEN-TRAL KANSAS.

Hybrid or	19 7 te	1944         1943-1944           7 tests         14 tests		1944 ests	1942-1944 20 tests	
variety	Yield	Rank	Yield	Rank	Yield	Rank
Kansas 2234 Kansas 1585 Illinois 200 Funk G-80 Kansas 1583 Pride of Saline K I H 38	Bu. 72.9 67.6 66.5 66.5 65.1 64.6 62.7	1 2 3 3 5 6 7	Bu. 64.5 59.9 58.2 58.8 58.8 58.8 57.7 55.9	1 2 5 3 3 6 8	Bu. 56.0 55.6 54.2	
U. S. 13 U. S. 35 Steckley 790		8 9 1.0	56.5 52.9	7 9 	$53.8 \\ 50.2 \\ \dots$	4 5
Kansas 11 Midland A Hays Golden Colby Yellow Cap	$58.1 \\ 55.8 \\ 53.5 \\ 41.0$	$11 \\ 12 \\ 13 \\ 14$	$49.5 \\ 46.3 \\ 37.1$	$10 \\ 11 \\ 12$	$49.6 \\ 48.2 \\ 34.6$	6 7 8

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Ę		Acre y	vield	Erect	plants		
Rank i yield	Hybrid or variety	Actual	Rela- tive*	Actual	Rela- tive*	Stand	Dropped ears
	<u> </u>	Bu.	Pct.	Pet.	Pct.	Pet.	Pct
$     \begin{array}{c}       1 \\       2 \\       3 \\       4 \\       5 \\       6 \\       7 \\       8 \\       9 \\       10 \\       10 \\       \end{array} $	Funk G-711 Kansas 1285 Jewett 12 Iowealth TX 1 Kansas 1777 Kansas 1583 Hendriks L2 Kansas 1648 Kansas 1517 Kansas 16	56.3 52.3 52.3 51.5 50.9 50.9 50.9 50.9 50.7 50.7 50.7	135 125 125 125 124 122 122 122 122 122 122 122 122	94 94 88 71 86 92 90 78 89 81 73	129 121 97 118 126 123 107 122 111 100	99 999 999 995 996 996 997 999	2 8 7 7 2 3 8 7 2 10
11	Kansas 2234	ð0.6	122	88	121	98	2
	Differences in yield o	f less than	5.7 bush this test	els an acr	e are not	signific	ant
$12\\13\\14\\15\\16\\17\\18\\19\\20$	Kansas 2298 Kansas 2290 Pride of Saline Hendriks L Trinoka 7 Kansas 2303 Kansas 2273 Kansas 2305 Kansas 1783	50.4 49.5 48.1 47.5 46.8 46.4 46.2 46.1 45.8	121 119 115 114 112 111 111 111 111	89 97 76 70 78 87 91 89 89 86	122 133 104 96 107 119 125 122 122	96 99 98 96 96 97 99 99 98	33 <b>4</b> 544364
$21 \\ 22 \\ 23 \\ 24 \\ 25 \\ 26 \\ 27 \\ 28 \\ 29 \\ 30$	Kansas 2299 Reid Midland hybrid Pfister 164 Kansas 2063 Kansas 2306 Kansas 2292 Kansas 1781 Kansas 17 Kansas 11 Kansas 11	$\begin{array}{c} 45.5\\ 45.5\\ 45.3\\ 45.3\\ 45.1\\ 45.0\\ 43.8\\ 43.8\\ 43.3\\ 43.3\\ 43.3\\ 43.3\\ 43.0\end{array}$	109109109108108105104104104	91 90 75 94 94 96 88 87 90	$125 \\ 111 \\ 123 \\ 103 \\ 129 \\ 132 \\ 132 \\ 132 \\ 119 \\ 123$	96 99 97 91 99 99 98 99 98 99 98	724636 <b>33</b> 44
$     \begin{array}{r}       31 \\       32 \\       334 \\       35 \\       36 \\       37 \\       38 \\       39 \\       40 \\     \end{array} $	Pioneer 300 Kansas 1782 Illinois 200 Midland A K. I. H. 38 U. S. 13 Pfister 380 Kansas 2304 Kansas 1588 Pfister 1897	$\begin{array}{c} 42.7\\ 42.5\\ 42.5\\ 42.4\\ 41.9\\ 41.6\\ 41.3\\ 40.8\\ 40.8\\ 40.7\end{array}$	$     \begin{array}{r}       102 \\       102 \\       102 \\       100 \\       100 \\       99 \\       98 \\      $	95 93 90 69 83 91 94 98 88 81	$130 \\ 127 \\ 123 \\ 95 \\ 114 \\ 125 \\ 129 \\ 134 \\ 121 \\ 111$	99 97 99 99 96 94 98 98 97	2 3 7 4 7 9 1 7 2 2
$41 \\ 42 \\ 43$	U. S. 35 Pfister 4897 Hays Golden	$\begin{array}{c} 40.0 \\ 37.7 \\ 34.5 \end{array}$	96 90 83	$91 \\ 96 \\ 75$	$125 \\ 132 \\ 103$	89 97 93	$3 \\ 1 \\ 0$
Av.	of 43 entries	45.8		87		96	
AV.	ol s adapted open- ollinated varieties of 40 hybrids	41.7 <b>46.1</b>	100	73 88	100 <b>121</b>	94 97	3
	TW	O-YEAR A	VERAGE	. 1 <b>943-1</b> 94	4		Ū
$     \begin{array}{c}       1 \\       2 \\       3 \\       4 \\       5 \\       6 \\       7 \\       8 \\       9     \end{array} $	Jewett 12 Kansas 2234 Kansas 16 Kansas 17 Kansas 2275 Hendriks L Kansas 11 Kansas 1585 U. S. 13	39.3 39.2 38.5 36.2 36.2 36.1 35.8 35.1	122 122 121 120 112 112 112 112 111 109	60 78 56 73 71 60 75 58 87	$     \begin{array}{r}       103 \\       134 \\       97 \\       126 \\       122 \\       103 \\       129 \\       100 \\       150 \\     \end{array} $		

# TABLE 11. RESULTS, WICHITA EXPERIMENT FIELD, DISTRICT 5, SOUTHCENTRAL KANSAS.

\*Performance of entry relative to the average of open-pollinated varieties.



TABLE 11. RESULTS, WICHITA EXPERIMENT FIELD, DISTRICT 5, SOUTHCENTRAL KANSAS (Concluded).

		Acre yi	eld	Erect	plants		r,					
Rank ir yield	Hybrid or variety	Actual	Rela- tive*	Actual	Rela- tive*	Stand	Droppe ears					
$10 \\ 11 \\ 12 \\ 13 \\ 14 \\ 15 \\ 16 \\ 17 $	Pride of Saline U. S. 35 Kansas 1583 Illinois 200 K. I. H. 38 Kansas 2292 Hays Golden Midland A	$\begin{array}{c} \text{Bu.} \\ 35.0 \\ 34.8 \\ 34.5 \\ 34.2 \\ 33.4 \\ 33.4 \\ 31.1 \\ 30.5 \end{array}$	Pct. 109 108 107 107 106 104 97 95	Pct. 65 85 54 83 86 71 60 50	Pct. 112 147 93 143 148 122 103 86	Pet.	Pet.					
Av. Av. po	of 17 entries of 3 adapted open- ollinated varieties of 14 hybrids	35.5 32.2 <b>36.2</b>	100 <b>112</b>	69 58 71	100 <b>122</b>							
	THREE-YEAR AVERAGE, 1942-1943-1944											
123456789010	Kansas 16 Kansas 2234 Kansas 17 Kansas 11 Kansas 1585 U. S. 13 U. S. 35 Pride of Saline Illinois 200 Midland A	$\begin{array}{c} 36.4\\ 36.2\\ 35.0\\ 33.2\\ 33.1\\ 31.2\\ 30.9\\ 30.4\\ 30.1\\ 30.1 \end{array}$	$122 \\ 121 \\ 117 \\ 111 \\ 104 \\ 103 \\ 102 \\ 101 \\ 101$	64 84 79 78 70 84 81 68 85 61	$100 \\ 131 \\ 123 \\ 122 \\ 109 \\ 131 \\ 127 \\ 106 \\ 133 \\ 95$	†957 957 952 992 992 998 998 998						
11	Hays Golden	29.1	97	62	97	93						
Av. Av. p	of 11 entries of 3 adapted open- ollinated varieties of <b>8 hybrids</b>	\$2.3 29.9 <b>33.3</b>	100 111	74 64 <b>78</b>	$100 \\ 122$	95 93 <b>95</b>						
	FOUR-Y	EAR AVER	AGE, 19	41-1942-19	43-1944							
12345678	Kansas 17 Kansas 11 U. S. 13 U. S. 35 Illinois 200 Pride of Saline Midland A Hays Golden	35.4 33.1 31.9 31.2 30.9 30.6 29.3	$     \begin{array}{r}       117 \\       109 \\       105 \\       103 \\       102 \\       101 \\       97     \end{array} $	73 750 800 655 60	$116 \\ 119 \\ 127 \\ 127 \\ 124 \\ 103 \\ 103 \\ 95$	<b>‡97</b> 96 97 98 97 98 97 95						
Ay. Av. p Av.	of 8 entries of 3 adapted open- ollinated varieties of 5 hybrids	31.8 30.3 <b>32.7</b>	100 <b>108</b>	72 63 <b>77</b>	100 <b>122</b>	96 95 <b>96</b>	: 					

\*Performance of entry relative to the average of open-pollinated varieties. †This column—average two years, 1942-1944. ‡This column—average three years, 1941-1942-1944.

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TABLE 12. RESULTS, COOPERATIVE TESTS, DISTRICT 5, SOUTHCEN-TRAL KANSAS.

Hybrid or variety	19 7 te	44 sts	1943- 10 t	1944 ests	1941-1944 17 tests	
	Yield	Rank	Yield	Rank	Yield	Rank
	Bu.		Bu.			
Kansas 2234 Kansas 1585 Kansas 1583 Hendriks L Funk G-711 Trinoka 7 Midland A Pride of Saline U. S. 13 Illinois 200	$\begin{array}{c} 45.4\\ 44.8\\ 44.8\\ 41.6\\ 38.5\\ 37.3\\ 36.8\\ 36.6\\ 36.5\end{array}$	1 22 4 5 6 7 8 9 10	$\begin{array}{c} 45.1 \\ 42.8 \\ 44.4 \\ 41.8 \\ \hline \\ 37.1 \\ 38.0 \\ 37.5 \\ 37.2 \\ \end{array}$	1 3 2 4  9 5 6 8	41.6 41.7 41.0 40.8	  1 3 4
K. I. H. 38 Hays Golden U. S. 35	$36.3 \\ 34.8 \\ 34.0$	$\begin{smallmatrix}&11\\12\\13\end{smallmatrix}$	$37.5 \\ 32.4 \\ 35.1$	$\begin{smallmatrix}&6\\11\\10\end{smallmatrix}$	33.7 39.2	- 6 5

TABLE 13.	RESULTS,	SMITH	CENTER	EXPERIMENT	FIELD,	DISTRICT	6,
NORTHWEST	TERN KAN	SAS.	-				

		Ayi	Acre Erect yield plants			re T	Height		
Rank i yield	or variety	Actual	Rela- tive*	Actual	Rela- tive*	Stand	Moistu	Plant	Ear
		Bu.	Pet.	Pet.	Pct.	Pct.	Pct.	Ft.	In.
1 2 3 4 5 6 7 8 9 10 11	Kansas 1639 Funk G-88 Pfister 164 Kansas 17 Kansas 2225 Funk G-711 Funk G-97 <b>Kansas 4</b> Pfister 380 Kansas 1583 Kansas 1104	52.2 48.4 48.2 48.0 46.3 46.3 46.2 46.2 46.1 45.9 45.6 45.3	132 120 120 119 116 115 115 115 114 114 113 112	100 95 100 92 96 92 94 <b>93</b> 100 100 99	110 104 110 101 105 101 103 102 110 110 109	100 99 99 91 100 97 <b>96</b> 99 99 99	$16.1 \\ 19.0 \\ 16.3 \\ 18.6 \\ 18.1 \\ 19.0 \\ 19.4 \\ 16.5 \\ 15.8 \\ 18.2 \\ 17.1 \\ 17.1 \\ 1000 \\ $	7.8 8.37 7.7 8.0 8.2 8.3 7.5 8.0 7.3	82 452 367 464 345 367 367 367
	Difference in yield o	r less t	in thi	bushel s test.	s an aci	re are	not sign	ifican	t .
$12 \\ 13 \\ 14 \\ 15 \\ 16 \\ 17 \\ 18 \\ 19 \\ 20$	Kansas 2275 Kansas 1659 Kansas 1589 Kansas 5 Kansas 1643 Kansas 3 Kansas 11 Pride of Saline Kansas 1718	$\begin{array}{r} 45.1 \\ 45.0 \\ 45.0 \\ 44.7 \\ 44.6 \\ 44.4 \\ 44.2 \\ 44.1 \end{array}$	$112 \\ 112 \\ 112 \\ 111 \\ 111 \\ 111 \\ 110 \\ 110 \\ 109 $	$100 \\ 99 \\ 97 \\ 94 \\ 99 \\ 91 \\ 100 \\ 93 \\ 98$	110     109     107     103     109     100     110     102     108     108     108     108     100	$97 \\ 100 \\ 100 \\ 97 \\ 99 \\ 98 \\ 97 \\ 96$	$17.4 \\ 14.8 \\ 18.0 \\ 18.9 \\ 16.8 \\ 19.0 \\ 16.9 \\ 18.6 \\ 17.3 \\ 17.3 \\ 17.3 \\ 10.1 \\ $	7.3 8.0 8.3 7.7 7.8 7.8 8.0 7.7	32 37 44 39 38 37 36 40 34
21 22 23 24 25 26 27 28 29 30	Reid Nat'l. 127 Kansas 2234 Kansas 2216 Pioneer 332 Pioneer 300 Kansas 1582 Illinois 200 U. S. 35 Kansas 16 K. I. H. 38	$\begin{array}{r} 44.0\\ 44.0\\ 43.8\\ 43.3\\ 43.2\\ 43.2\\ 43.0\\ 42.1\\ 42.1\\ 41.1\end{array}$	109109107107107107107104104102	$     \begin{array}{r}       100 \\       97 \\       100 \\       98 \\       100 \\       95 \\       99 \\       99 \\       95 \\       99 \\       99 \\       95 \\       99 \\       99 \\       95 \\       99 \\       99 \\       95 \\       99 \\       99 \\       95 \\       99 \\       99 \\       95 \\       99 \\       99 \\       95 \\       99 \\       99 \\       95 \\       99 \\       99 \\       95 \\       99 \\       99 \\       95 \\       99 \\       99 \\       95 \\       99 \\       99 \\       95 \\       99 \\       99 \\       99 \\       95 \\       99 \\       99 \\       99 \\       99 \\       99 \\       99 \\       99 \\       99 \\       99 \\       99 \\       99 \\       99 \\       99 \\       99 \\       99 \\       90 \\       9$	110     107     110     108     110     104     109     109     104     109     104     109	99 100 94 100 98 95 98 97 99 99	$16.2 \\ 18.3 \\ 18.3 \\ 18.4 \\ 16.8 \\ 18.3 \\ 16.5 \\ 16.1 \\ 19.9 \\ 16.5 \\ 16.5 \\ 16.5 \\ 16.5 \\ 16.5 \\ 16.5 \\ 16.5 \\ 16.5 \\ 16.5 \\ 10.5 \\ $	877.820 77.88.02 8.77.88 8.77.88 8.88 7.88 8.88 7.88 8 8 7.88 8 8 7.88 8 8 7.88 8 7.88 8 7.88 8 7.88 8 7.88 7.88 7.88 7.88 7.88 7.88 7.88 7.88 7.88 7.88 7.88 7.88 7.88 7.88 7.88 7.89 7.88 7.89 7.89	38 34 38 37 34 37 32 40 40
$\begin{array}{c} 31\\ 32\\ 33\\ 34\\ 35\\ 36\\ 37\\ 39\\ 40 \end{array}$	U. S. 13 Kansas 1585 Kansas 1648 Kansas 1516 Cornhusker 123 Hays Golden Kansas 1715 Midland A Kansas 2242 Kansas 1614	$\begin{array}{c} 41.0\\ 39.5\\ 39.2\\ 39.2\\ 38.7\\ 38.5\\ 38.3\\ 38.3\\ 38.1\\ 35.9 \end{array}$	102 98 97 96 96 95 95 95 89	99999987989010090100100	$     \begin{array}{r}       109 \\       109 \\       96 \\       108 \\       99 \\       110 \\       99 \\       110 \\       110 \\       110 \\       110     \end{array} $	92 97 94 97 94 97 94 97 95 95 95	$16.2 \\ 17.1 \\ 17.6 \\ 20.1 \\ 16.2 \\ 16.5 \\ 17.2 \\ 19.2 \\ 20.4 \\ 18.5$	8.2 7.8 7.8 7.8 7.8 7.8 7.8 7.8 7.8 7.8 7.8	$36 \\ 40 \\ 38 \\ 42 \\ 40 \\ 30 \\ 37 \\ 32 \\ 40$
Av. Av.	of 40 entries of 3 adapted open-	43.5		97		97	17.7	7.8	37
po Av.	of 37 hybrids	40.3 43.7	100 108	91 97	100 107	96 97	18.1 <b>17.6</b>	7.6 7.9	36 <b>38</b>
12	TWO Kansas 1639 Kansas 2234	-YEAR 48.8 44 5	AVER 128 117	100 99	942 and 105 104	1944 100	$   \begin{array}{c}     18.2 \\     20.3   \end{array} $	7.2	31 24
	Kansas 1643 Kansas 1643 Kansas 2216 Kansas 1104 U. S. 35 U. S. 13 Illinois 200 Pride of Saline	$\begin{array}{r} +1.0\\ 43.7\\ 43.1\\ 42.9\\ 42.1\\ 41.6\\ 40.8\\ 40.5\\ 40.1\end{array}$	115     113     113     111     109     107     106	993 993 999 999 999 997	10498104104104104104104104	98 97 97 98 97 98 997 997 997	$ \begin{array}{r}     25.5 \\     18.6 \\     16.6 \\     22.4 \\     21.2 \\     18.9 \\     17.4 \\     19.3 \\     21.6 \\ \end{array} $	7.4 8.0 7.0 6.8 7.6 7.6 7.4	47~3531568 335331568 33533338
$11 \\ 12 \\ 13 \\ 14$	Kansas 11 K. I. H. 38 Kansas 1614 Hays Golden	$39.5 \\ 38.9 \\ 37.5 \\ 36.0$	$104 \\ 102 \\ 99 \\ 95$	99 98 100 93	$104 \\ 103 \\ 105 \\ 98$	98 99 99 96	$20.0 \\ 18.5 \\ 21.5 \\ 19.0$	$7.0 \\ 7.6 \\ 7.4 \\ 6.2$	$32 \\ 36 \\ 38 \\ 26$
Av. Av. po Av.	of 14 entries of 2 adapted open- llinated varieties of 12 hybrids	41.4 38.0 <b>42.0</b>	100 111	98 95 <b>99</b>	100 104	98 97 <b>98</b>	19.5 20.3 <b>19.4</b>	7.2 6.8 <b>7.3</b>	34 32 <b>34</b>

\*Performance of entry relative to the average of open-pollinated varieties.

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TABLE 14. RESULTS, COOPERATIVE TESTS, DISTRICT 6, NORTHWEST-ERN KANSAS.

Hybrid or variety	19 7 te	44 ests	1943 14 1	-1944 tests	1942-1944 17 tests	
	Yield	Rank	Yield	Rank	Yield	Rank
Kansas 2234 Kansas 1583 Kansas 1585 Pride of Saline K. I. H. 38 Kansas 11	Bu. 57.3 55.6 51.4 51.0 50.7 49.5	1 2 3 4 5 6	Bu. 53.3 47.3 46.0 45.7	$\begin{array}{c}1\\2\\\\4\\5\\\end{array}$	Bu.  46.9 45.9	  1 2
U. S. 13 Illinois 200 U. S. 35 Hays Golden Funk G-97	$     49.0 \\     48.6 \\     45.0 \\     44.9 \\     42.9 $	7 8 9 10	$46.1 \\ 45.7 \\ 42.1 \\ 41.6$	3 5 7 8	$\begin{array}{r} 44.5 \\ 44.9 \\ 42.1 \\ 40.7 \end{array}$	<b>4</b> 35 6
Colby Yellow Cap	34.7	$12^{-12}$	33.3	9	33.4	