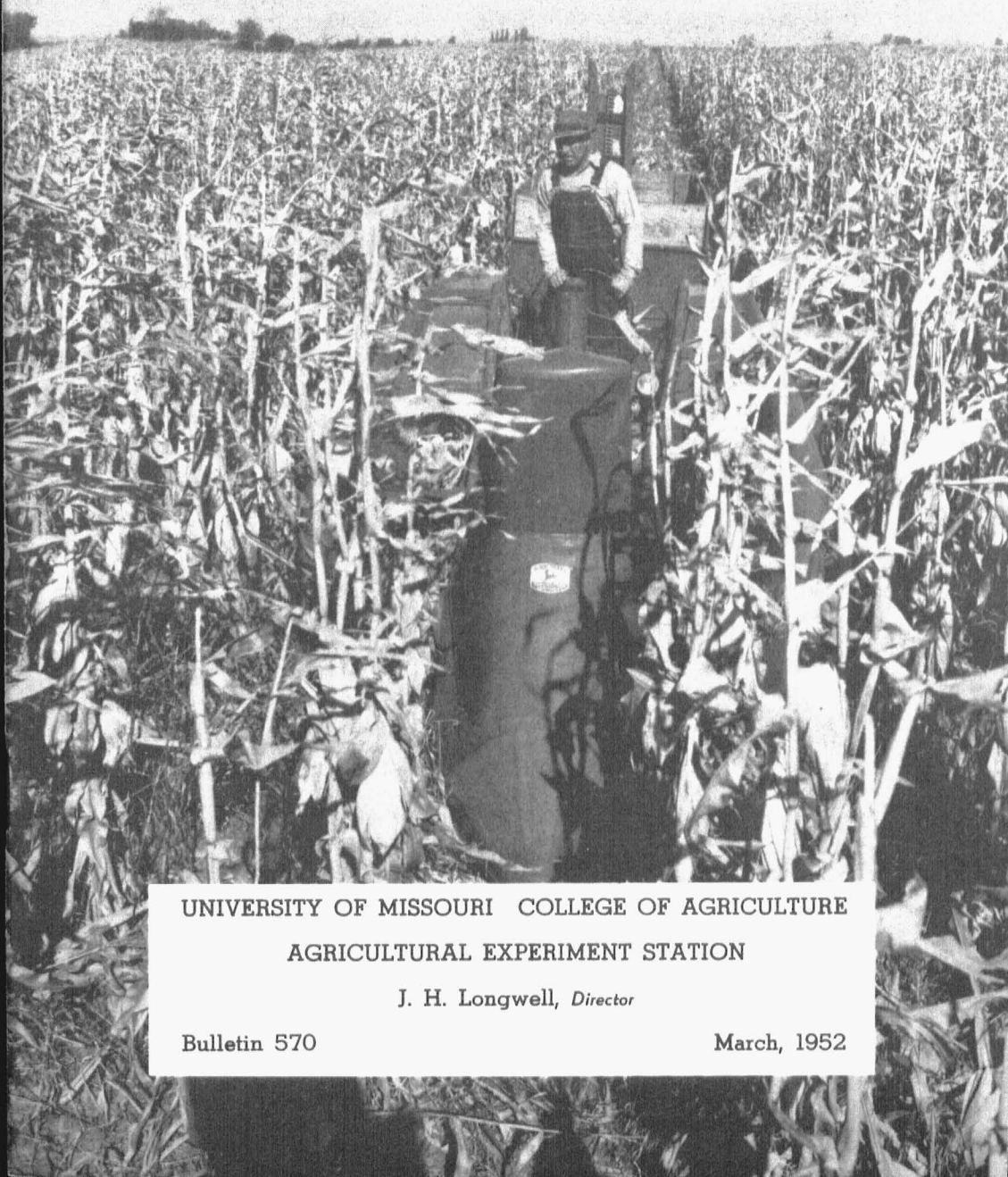
1951 YIELD TRIALS

WITH

CORN HYBRIDS IN MISSOURI



UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE

AGRICULTURAL EXPERIMENT STATION

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Bulletin 570 March, 1952

1951 YIELD TRIALS WITH CORN HYBRIDS IN MISSOURI[1]

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INTRODUCTION

The 1951 Missouri Corn Yield Trials, consisting of replicated yield tests conducted in the same manner as in previous years, are reported in Section I. Mechanical picker tests with the objective of measuring the picking performance of certified and promising new experimental hybrids, reported in Section II, were conducted in several locations of the state for the first time in 1951.

Section I

1951 REPLICATED YIELD TRIALS

Replicated yield trials of certified open pedigreed and experimental hybrids were planted in thirteen locations, including five in the Southern and four each in the Central and Northern regions (Figure 1 and Table 1). Only the tests at Palmyra, Shelbina, Columbia, Pierce City, Stark City, and Sikeston were harvested. The remaining tests were abandoned either because of damage from excessive rainfall or from floods.

It is regrettable that the testing of closed pedigreed hybrids had to be discontinued in 1951. Increased costs of testing plus a shortage of personnel necessitated this action.

EXPERIMENTAL METHODS

1. TYPE OF FIELD DESIGN. All trials consisted of 28 hybrids. Each hybrid was planted in a plot consisting of two rows, ten hills long and replicated four times. The field design was a modified Latin square with four replications.

2. YIELD DETERMINATIONS. The corn was harvested by hand and each plot weighed. Acre yields were computed on the basis of shelled corn with 15.5 per cent moisture. Yields of hybrids exceeding this moisture percentage were adjusted downward, and yields of hybrids having a lower moisture content than 15.5 per cent moisture were adjusted upward. Yields were also adjusted for missing hills, but not for other variations in the stand.

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3. MOISTURE AT HARVEST. The percentage of moisture at harvest was determined by drawing ten ears at random from one replication and removing two rows of kernels from each ear. The shelled corn from these ears was mixed and the percentage of moisture determined with a Tag-Heppenstall moisture meter.

4. STAND PERCENTAGE. The stand percentage was determined by making actual counts of the plants present and computing the per cent based on a perfect stand. All tests were planted at the rate of five seeds per hill and later thinned to either two or three plants per hill, depending upon the soil fertility.

5. PER CENT LODGING. A plant was classified as "root lodged" when it leaned more than thirty degrees from the vertical, and "stalk lodged" if the stalk was broken below the ear. If a plant was both root and stalk lodged, it was counted in both categories.

6. EAR HEIGHT GRADE. Each hybrid was graded for the approximate number of feet from the ground to the point where the upper ear was attached to the stalk.

7. SIGNIFICANT DIFFERENCES. Differences necessary for significance between the acre yields of any two hybrids for a particular location, are given at the foot of each table but they are not given for the period-of-year summaries or the regional summaries. It is not possible to determine the yield ability of a hybrid with absolute accuracy due to variations caused by soil fertility and other factors, such as damage to stand by rodents and insects. Each hybrid was planted in each testing field in four different plots, and the difference in bushels necessary for significance between any two hybrids is computed by statistical calculation. For example, in the Shelbina test, Table 12, the difference between any two hybrids necessary for significance is 9.2 bushels. A difference less than 9.2 bushels between any two hybrids would suggest that the difference was due more likely to chance variation than to inherent differences in the yeilding abilities of the two hybrids.

SEASONAL CONDITIONS

Due to the very wet season and river floods over 500,000 acres of the Missouri corn acreage was abandoned. Excellent yields were received wherever weather permitted proper cultivation and the application of fertilizers. Above average yields were received in the South Central and Northeastern areas, while below average yields occurred in Northwestern and the extreme Southeastern part of the State. Droughty conditions in the extreme Southeastern area during July and August resulted in lower yields. The average corn yield for Missouri was estimated by the Agricultural Statistician of the U. S. Department of Agriculture, located at Columbia, Missouri, to be 34.0 bushels.

Temperature and rainfall data from May 1 to September 15 were assembled by Wayne L. Decker, Assistant Professor of Climatology at the Missouri Agricultural Experiment Station, and are given in Tables 2 and 3, respectively. The greatest amount of rainfall occurred at Lathrop with 39 inches, with least amounts falling at Deering and Caruthersville in southeast-

ern Missouri. The number of days in June with rain ranged from 11 days in Southeastern Missouri to 22 days at Columbia. Caruthersville and Deering had three dry periods with less than .25 of an inch of rain. The remaining locations had at least one dry period, with Palmyra, Stark City, and Pierce City having two dry periods of 10 days or longer with less than .25 of an inch of rain. The average temperature for the state was .5 to 2.5 degrees below normal.

The yield trial at Jefferson City was inundated by the Missouri River flood in early July, 1951. The yield trials at Maryville, Lathrop, Malta Bend, and Elsberry were not harvested because of damage from excessive rainfall. The Deering and Caruthersville yield trials suffered from insufficient moisture immediately after planting and droughty conditions in July and August, and were abandoned.

Hybrids at Shelbina and Palmyra were very high in moisture at harvest due to the very wet season.

The European corn borer accounted for the high percentage of stalk lodging and dropped ears at Shelbina and Palmyra.

SEED SOURCES FOR THE 1951 TESTS

Seed for the open pedigreed hybrids were a composite of remanent samples secured from each grower's lot for certification requirements. Seeds of experimental hybrids were obtained from the respective experiment stations. The seed sources of the various hybrids are listed in Table 4.

SOIL ANALYSIS AND CULTURAL PRACTICES

Soil analyses were made on the various testing fields. The results of these analyses as well as the soil type, previous crop, fertilizer application, the average number of plants per acre, and the average yields are given in Table 5.

INTERPRETATION OF RESULTS

The evaluation of hybrids for yield and standing ability for a period of years is more valuable than the results from a single year. A hybrid may be outstanding one year while in the next several years it may be very undesirable. For example, environmental conditions may not be present every year to cause root or stalk lodging. Results over a period of years tend to average these fluctuations. Tables 6, 7, and 8 give the period of year-averages for hybrids that have been tested for 5, 4, 3, and 2 years in each of the Northern, Central, and Southern regions.

The results for 1951 are summarized for the Northern region (Table 9) and Southern Region (Table 11). Only one test was harvested in the Central region (Table 10).

NORTHERN REGION

For the 3, 4, and 5-year periods Kan. 1639 has an outstanding performance record for this region, followed closely by Ohio C 92. Both hybrids

are superior to U. S. 13 and Mo. 148 in yield and standing ability. Kan. 1639 and Ohio C 92 are both more desirable from the standpoint of harvesting with a mechanical picker. In addition, Kan. 1639 has a lower ear height and better husk coverage than any of the other aforementioned hybrids. Kan. 1639 has been recommended for certification in Missouri since 1947, however, very little seed has been produced.

Among the experimental yellow hybrids adapted to this region, N.E. 7847 and N. E. 7826 show promise. Mo. 843 has exceeded U.S. 13 in yield by 16.9 bushels, and is equal to it in root lodging and about 6 per cent better in stalk lodging.

CENTRAL REGION

Among the midseason hybrids of U.S. 13 maturity, Kan. 1639 is again the outstanding hybrid for the 3, 4, and 5-year periods, and in the later group, U.S. 523W, a late white hybrid, and Mo. 804, a late Yellow hybrid, excel in their performance. Several late yellow experimental hybrids, C.B. 7610 and Mo. 862 have good records but are not sufficiently more outstanding than Mo. 804 to justify their release at this time.

SOUTHERN REGION

It is of interest to note the comparative performance of Kan. 1639 and U.S. 13 in this region versus the same comparisons in the Central and Northern Regions. Although Kan. 1639 is not inferior to U.S. 13 in this region, it is not as superior in its performance as it was in the Northern and Central Regions.

Among the late yellow hybrids, Mo. 804, C.B. 7610, Mo. 862, and Dixie 22 had excellent records, while U.S. 523W, Mo. 5365W, and Dixie 33 were best among the late white hybrids.

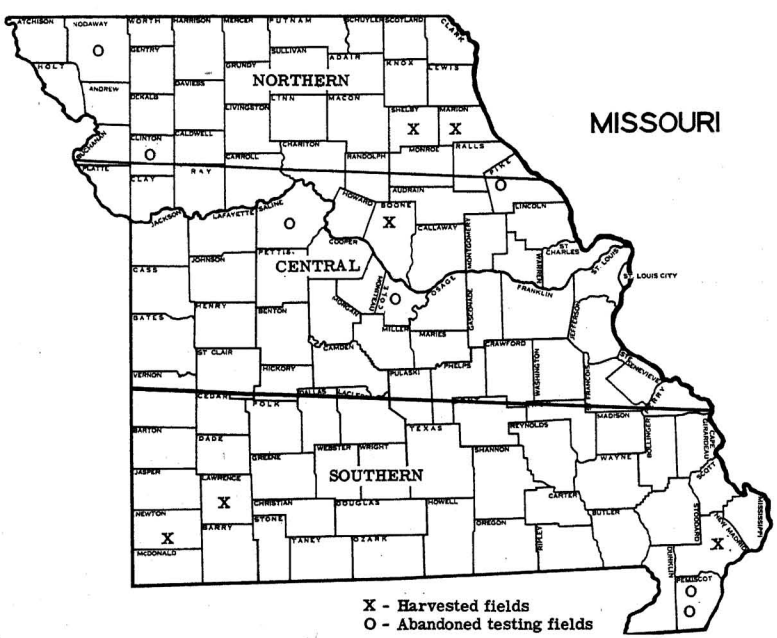

Figure 1. Outline map of Missouri showing the three regions and the locations of replicated testing fields in 1951.

Section II

1951 MECHANICAL PICKER TESTS*

INTRODUCTION

Mechanical picker tests were planted in six locations of the state (Figure II). The locations and cooperators were as follows:

1.	R. T. Wright	Maryville, Missouri
2.	Roy Chinn	Shelbina, Missouri
3.	Harold Gaddy	Marshall, Missouri
4.	Robert Mason	Warrensburg, Missouri
5.	Joe Frerer and Ralph Schell	Jasper, Missouri
6.	Southeast Missouri Experiment Station	Sikeston, Missouri

Only the tests at Maryville, Jasper, and Sikeston were harvested. The objective of the mechanical picker test was to measure the relative "pick ability" of different hybrids.

EXPERIMENTAL METHODS

All tests were planted in non-replicated two row plots of approximately 500 feet in length. Five of the six tests were planted with mechanical hill drop planters, while the remaining test, located at Sikeston, was planted by hand and later thinned. The tests planted by hill drop planters had variable stands due to the wide variation in seed size. Therefore, the acre yields are not accurate, and due to no replications an error determination was not possible. Although the acre yields were calculated and are given in the various tables of the mechanical picker tests, the reader should be warned not to put too much value on the yield data. The acre yields given in the replicated yield trials are more accurate and should be used in preferrence to the less accurate acre yield data presented in Section II.

Each of the two rows from each plot was harvested by a machanical picker. The Maryville tests were picked with a single row John Deere picker mounted on a Farmall Tractor, while both the Jasper and the Sikeston tests were picked with an International Model 24 two-row picker mounted on a DM Farmall tractor.** The weight of ear corn harvested, plus the weight of the ear corn gleaned, was used to calculate the acre yield. The bushels per acre remaining in the field were calcuated by the weight of the gleaned corn. Bushels of shelled corn were calculated from the weight of the shelled corn which remained on the floor of the box used to collect the corn from the picker. Stand per cent and number of stalk lodged plants are the results of comparing counts of plants present in relation to a perfect stand, and the number of

*The services and cooperation of Extension Agronomists J. Ross Fleetwood and William J. Murphy, in conducting the mechanical picker tests is gratefully acknowledged.

**The picker for the Sikeston tests was furnished by the Nailling Truck and Tractor Co., Inc. of Sikeston, Missouri, and operated by Mr. Herschell Newman. Mr. A. L. (Lee) Le Masters of Golden City, Missouri, furnished and operated the picker for the Jasper tests.

plants broken below the ear in per cent of the total number of plants present. Corn harvested by the mechanical picker was separated into ears with shucks attached and cleanly picked ears. The per cent of picked clean corn and picked corn with shucks was calculated from these data.

RESULTS

The results of the three mechanical picker tests harvested are given in Tables 17, 18, and 19. Considerable differences are apparent between hybrids. The two most important factors affecting the mechanical "pick ability" of a hybrid are probably its moisture content and the amount of stalk lodging at the time of harvest. In general, higher moisture content results in less shelled corn and in a higher per cent of cleanly picked corn. Two exceptions are Mo. 8 and U.S. 523W, which apparently are difficult to pick cleanly. In the case of U.S. 523W, very little corn was left in the field, while Mo. 8 had a large amount of stalk lodging and consequently a larger amount of corn remaining in the field. As might be expected, there is usually more corn left in the field when the stalk lodging percentage is high.

Different results may have been obtained by harvesting at earlier or later dates. The stage of maturity and weather conditions will greatly influence the results from mechanical picker test.

Figure 2. Location of 1951 Mechanical Picker Tests
X Harvest Tests
O Abandoned Tests

TABLE 1--COOPERATORS, LOCATION OF TESTING FIELD AND DATES PLANTED AND HARVESTED

	Cooperators	Location	County	Region	Date Planted	Date Harvested
1.	R. T. Wright Northwest State College	Maryville, Missouri	Nodaway	Northern	June 5	Abandoned
2.	C. L. Van Buren, Northwest Missouri Agri. Exp. Station	Lathrop, Missouri	Clinton	Northern	May 23	Abandoned
3.	Nichols Hilt	Palmyra, Missouri	Marion	Northern	May 17	November 16
4.	Roy Chinn	Shelbina, Missouri	Shelby	Northern	May 17	November 15
6.	Mrs. Harry Plattner & Son	Malta Bend, Missouri	Saline	Central	May 16	Abandoned
7.	South Farm, Missouri Agricultural Experiment Station	Columbia, Missouri	Boone	Central	May 8	October 20
8.	Missouri State Prison Farm, Col. Paul Renz, Supt.	Jefferson City, Missouri	Cole	Central	May 15	Abandoned
9.	Missouri Bottomland Agricultural Experiment Field	Elsberry, Missouri	Pike	Central	May 21	Abandoned
10.	Dan A. Turner	Stark City, Missouri	Newton	Southern	May 4	October 24
11.	Southwest Missouri Agricultural Experiment Station	Pierce City, Missouri	Lawrence	Southern	May 4	October 23
12.	Southeast Missouri Agricultural Experiment Station	Sikeston, Missouri	New Madrid	Southern	May 2	October 9
13.	Deering Farms	Deering, Missouri	Pemiscot	Southern	May 1	Abandoned
14.	S. Crews Reynolds	Caruthersville, Missouri	Pemiscot	Southern	April 30	Abandoned

TABLE 2--TEMPERATURE AT THE VERIOUS TESTING LOCATIONS FOR THE PERIOD OF MAY 1ST TO SEPTEMBER 15, 1951*

Location	Closest Weather Station	Average Temperature	Departure From Normal
Maryville	Maryville	69.1	-0.9
Lathrop	Lathrop	69.8	-1.0
Palmyra	Hannibal	70.1	-1.8
Shelbina	Shelbina	70.6	-1.7
Malta Bend	Marshall	72.2	-0.5
Columbia	Columbia	71.3	-1.3
Jefferson City	Jefferson City	71.6	-1.7
Stark City	Neosho	72.8	-0.8
Pierce City	Mount Vernon	72.5	-0.9
Sikeston	Sikeston	72.3	-2.4
Caruthersville	Caruthersville	74.9	-2 5
Deering	Caruthersville	74.9	-2.5

*Wayne L. Decker, Assistant Professor of Climatology of the Missouri Agricultural Experiment Station, assembled the weather data.

TABLE 3--RAINFALL AT THE VARIOUS TESTING LOCATIONS FOR THE PERIOD OF MAY 1ST TO SEPTEMBER 15, 1951*

Location	Closest Weather Station	Total Rain	Number of Days During June with Rain	Number of Days with Rain from June 1 to July 15	Driest** Periods
Maryville	Maryville	29.94	16	23	7/23-8/7
Lathrop	Lathrop	39.06	17	25	7/23-8/2
Palmyra	Palmyra	16.07	11	13	5/1 -5/10 7/23-8/9
Shelbina	Shelbina	18.37	19	24	7/24-8/2
Malta Bend	Waverly	36.68	16	26	7/24-8/8
Columbia	Columbia	25.51	22	29	7/12-7/22
Jefferson City	Jefferson City	27.25	19	28	7/14-8/2
Stark City	Granby	27.10	13	19	5/22-6/7 7/14-7/26
Pierce City	Pierce City	24.73	16	21	5/23-6/6 7/12-7/30
Sikeston	Sikeston	20.20	17	25	5/5 -5/21
Caruthersville	Caruthersville	12.27	11	17	5/1 -5/20 7/26-8/10 8/12-9/9
Deering	Caruthersville	12.27	11	17	5/1 5/10 7/26-8/10 8/12-9/9

*Wayne L. Decker, Assistant Professor of Climatology of the Missouri Agricultural Experiment Station, Assembled the weather data.

**Dry period must have at least 10 days with less than .25 inch of precipitation.

TABLE 4--SEED SOURCES FOR THE 1951 CORN YIELD TESTS

DIXIE HYBRIDS
Tennessee Agricultural Experiment Station, Nashville, Tennessee

IOWA HYBRIDS
Iowa Agricultural Experiment Station, Ames, Iowa

KANSAS HYBRIDS
Kansas Agricultural Experiment Station, Manhattan, Kansas

MISSOURI, C. B. and N. E. EXPERIMENTAL HYBRIDS
Missouri Agricultural Experiment Station, Columbia, Missouri

MISSOURI 8
Craft Seed & Grain Co., Morehouse, Missouri
C. F. McMullin Estate, Sikeston, Missouri
D. A. Turner, Stark City, Missouri
M. F. A. Seed Division, Marshall, Missouri

MISSOURI 148
C. F. McMullin Estate, Sikeston, Missouri
C. H. E. Walther, Boonville, Missouri

NEBRASKA EXPERIMENTAL HYBRIDS
Nebraska Agricultural Experiment Station, Lincoln, Nebraska

OHIO C 92
M. F. A. Seed Division, Marshall, Missouri

U. S. 13
Ray Bolomey, Frankford, Missouri
Craft Seed & Grain Co., Morehouse, Missouri
Corneli Seed Co., St. Louis, Missouri
H. C. Decker, Sikeston, Missouri
P. B. Eubank, Huntsville, Missouri
M. F. A. Seed Division, Marshall, Missouri
Ed. F. Mangelsdorf & Bro., Inc., Atchison, Kansas
Dan McCoy Seed Co., Sikeston, Missouri
McRoberts Farm, Malta Bend, Missouri
Ralph Thomas, Sedalia, Missouri
Rollie Thomas, Hughesville, Missouri
Morton Tuttle & Son, Prairie Home, Missouri
C. H. E. Walther, Boonville, Missouri
Earl Woolston, Rushville, Missouri

U. S. 523W
Joseph L. Frerer, Jasper, Missouri
C. F. McMullin Estate, Sikeston, Missouri

TABLE 5--SOIL TYPE, PREVIOUS CROP, FERTILIZER APPLICATION, SOIL ANALYSIS, NUMBER OF PLANTS PER ACRE TOGETHER WITH THE AVERAGE YIELD OF ALL HYBRIDS TESTED AT THE VARIOUS LOCATIONS IN 1951.

Location	Soil Type	Previous Crop	Fertilizer Applied	Soil Analysis*						Lime Requirement	Number Plants per Acre	Average Yield Bu. per Acre
				Organic Matter	P	K	Mg	Ca	pH			
Maryville, Missouri	Upland	Oats and Red Clover	Abandoned	3.8	56	280+	460	3528	6.0	5000	Abandoned	
Lathrop, Missouri	Bottomland	Corn	Abandoned	3.8	42	280+	380	4750	5.7	5000	Abandoned	
Palmyra, Missouri	Upland	Corn	100 lbs. Ammonium Nitrate Side Dressed	2.7	42	280+	350	4030	5.5	2500	11,466	93.3
Shelbina, Missouri	Upland	Wheat and Red Clover	300 lbs. 4-24-12 plowed down and 175 lbs. N. in row	3.2	170	200	380	4450	5.5	4000	10,834	101.0
Malta Bend, Missouri	Bottomland	Corn	Abandoned	3.4	160	280+	380	4750	6.3	1500	Abandoned	
Columbia, Missouri	Upland	Wheat	250 lbs. 8-8-8 plowed down	2.0	126	164	380	4030	5.5	4500	7,620	77.2
Jefferson City, Missouri	Bottomland	Oats and Sweet Clover	Abandoned	2.2	224+	280+	600	7280+	7.6	None	Abandoned	
Elsberry, Missouri	Bottomland	Soybeans	Abandoned	3.0	182	280+	460	5600	5.6	3000	Abandoned	
Stark City, Missouri	Bottomland	Corn	100 lbs. Ammonium Nitrate and 150 lbs. 45% Phosphate plowed down and 100 lbs. 3-12-12 in row	2.0	42	164	140	3810	5.7	1500	10,996	99.0
Pierce City, Missouri	Upland	Corn	200 lbs. 8-8-8 and 200 lbs. Ammonium Nitrate	2.6	53	252	200	2800	5.4	4500	6,019	84.6
Sikeston, Missouri	Sikeston Ridge	Small Grain & Winter Vetch	275 lbs. 3-12-12 in row and 260 lbs. Ammonium Nitrate Side Dressed	2.2	98	200	160	4450	6.2	1000	11,056	111.0
Deering, Missouri	Miss. Delta	Cotton and Crimson Clover	Abandoned	2.4	224+	280+	600	5150	5.7	2000	Abandoned	
Caruthersville, Missouri	Miss. Delta	Corn	Abandoned	1.8	224+	280+	380	5150	7.2	None	Abandoned	

*Soil Analysis Made by the Soils Department of the Missouri Agricultural Experiment Station.

TABLE 6--SUMMARY OF AVERAGE PERFORMANCE RECORDS FOR HYBRIDS TESTED IN THE NORTHERN REGION 1947-1951

Hybrid	5-Year			4-Year			3-Year			2-Year		
	Acre Yield Bu.	Lodging		Acre Yield Bu.	Lodging		Acre Yield Bu.	Lodging		Acre Yield Bu.	Lodging	
		Root	Stalk		Root	Stalk		Root	Stalk		Root	Stalk
U.S. 13	85.2	2.6	12.9	91.7	1.7	14.6	85.8	2.2	17.2	87.1	3.4	19.0
Mo. 148	84.5	3.0	13.8	88.7	3.5	15.3	82.8	4.6	17.3	82.1	6.6	17.8
Oh. C 92	87.2	2.1	8.1	93.6	2.3	8.1	89.8	3.0	10.4	92.7	4.3	12.1
Kan. 1639	89.7	3.5	9.2	93.4	3.1	10.0	90.1	3.9	11.4	95.1	5.2	10.7
U.S. 523W				95.9	4.3	7.3	91.1	5.2	9.0	90.3	7.1	10.0
Mo. 840							92.1	1.5	21.9	94.8	2.1	24.2
Mo. 843										104.0	3.1	13.1
N.E. 7830										97.7	1.7	13.4
Mo. 860										95.8	2.1	19.6
Ia. 4531										89.7	3.3	14.3
N.E. 7847										104.4	6.3	14.4
Mo. 837										97.3	5.0	23.9
C.B. 7530										93.6	9.4	19.1
Mo. 4022W										87.5	3.1	10.7
C.B. 7539										92.7	3.3	10.4
N.E. 7826										102.1	5.8	15.6
Ia. 4476										91.0	1.5	16.3
Mo. 4009W										100.8	9.4	20.4
AES 803 (Nebr. 1219B)										92.8	2.5	21.0
Means	86.7	2.8	11.0	92.7	3.0	11.1	88.6	3.4	14.5	94.3	4.5	16.1

TABLE 7--SUMMARY OF THE AVERAGE PERFORMANCE RECORDS FOR HYBRIDS TESTED IN THE CENTRAL REGION 1947-1951

Hybrid	5-Year			4-Year			3-Year			2-Year		
	Acre Yield Bu.	Lodging		Acre Yield Bu.	Lodging		Acre Yield Bu.	Lodging		Acre Yield Bu.	Lodging	
		Root	Stalk		Root	Stalk		Root	Stalk		Root	Stalk
U.S. 13	73.2	6.9	6.7	79.4	2.7	7.9	82.5	3.6	10.1	86.7	3.6	9.4
Mo. 148	70.3	12.9	7.2	76.4	4.5	9.1	78.6	6.0	11.6	79.4	5.4	12.0
Oh. C 92	72.8	8.5	2.8	76.2	2.4	3.5	79.1	3.2	4.3	83.2	2.5	3.9
Mo. 8	70.9	15.0	9.4	77.1	8.7	9.3	80.6	11.5	11.3	83.9	12.3	9.1
Kan. 1639	76.7	12.1	3.6	81.3	3.5	4.5	85.1	4.6	5.5	88.2	4.3	5.2
U.S. 523W				92.5	5.8	3.9	97.0	7.8	5.1	101.2	6.7	4.8
Mo. 804							91.7	6.8	8.1	98.0	5.3	7.4
C.B. 7610										100.7	4.4	5.1
Mo. 862										100.0	5.9	4.6
Mo. 842										93.2	2.7	7.3
C.B. 7530										86.4	3.6	6.6
Mo. 4022W										88.3	7.0	3.1
N.E. 7830										92.2	4.9	4.8
Ia. 4476										88.9	1.0	5.3
Means	72.8	11.1	5.9	80.5	4.6	6.4	84.9	6.2	8.0	90.7	5.0	6.3

TABLE 8--SUMMARY OF AVERAGE PERFORMANCE RECORDS FOR HYBRIDS TESTED IN THE SOUTHERN REGION 1947-1951

	5-Year			4-Year			3-Year			2-Year		
	Acre	Lodging		Acre	Lodging		Acre	Lodging		Acre	Lodging	
Hybrid	Yield Bu.	Root	Stalk	Yield Bu.	Root	Stalk	Yield Bu.	Root	Stalk	Yield Bu.	Root	Stalk
U.S. 13	73.5	12.7	13.0	81.3	5.2	11.8	80.0	6.8	13.9	81.7	6.0	6.9
Mo. 148	72.8	13.9	16.3	81.3	6.9	14.1	79.2	9.1	17.0	81.1	11.5	9.8
Oh. C. 92	71.1	11.5	9.0	79.4	5.4	7.5	78.7	7.2	8.7	82.2	8.9	6.4
Mo. 8	74.5	21.4	17.1	82.9	12.5	16.4	80.7	15.7	17.6	84.1	17.1	10.2
Kan. 1639	72.4	12.7	9.5	81.6	5.3	7.1	81.5	7.0	8.8	83.0	8.3	6.5
U.S. 523W				96.2	9.5	7.6	96.0	12.4	9.7	99.5	15.0	7.2
Mo. 804							89.4	7.6	15.4	92.9	8.4	8.5
Dixie 17							103.7	17.0	30.0	105.7	16.5	23.1
Dixie 33										106.4	16.5	6.0
Dixie 22										102.6	11.2	14.8
Mo. 862										93.0	14.8	8.0
C.B. 7610										94.2	9.7	11.8
N.E. 7830										86.4	10.0	5.4
Ia. 4476										85.3	1.6	8.7
Mo. 5365W										113.8	14.9	9.6
Means	72.9	14.4	13.0	83.8	7.5	10.8	86.2	10.4	15.1	92.8	11.4	9.5

TABLE 9--NORTHERN REGION, AVERAGE PERFORMANCE RECORDS FOR HYBRIDS TESTED IN SHELBY AND MARION COUNTIES.

Rank	Hybrid	Acre Yield Bu.	Moisture in Grain %	Stand %	Lodged Plants Root %	Lodged Plants Stalk %	Dropped Ears %	Ear Height Grade
1	N.E. 7847 (Exp)	110.5	20.9	95.9	12.3	23.1	1.3	4.3
2	N.E. 7826 (Exp)	106.4	20.4	97.3	11.2	26.5	0.2	4.1
3	Mo. 843 (Exp)	106.1	23.3	94.2	6.1	21.7	1.9	3.7
4	Mo. 842 (Exp)	103.7	23.0	97.1	13.5	34.7	1.5	4.7
5	Mo. 4009W* (Exp)	103.4	23.1	91.5	18.6	34.6	1.2	4.7
6	Mo. 4029W* (Exp)	100.6	24.3	95.0	9.5	4.0	0.5	3.8
7	Mo. 840 (Exp)	100.2	22.2	92.9	4.1	42.4	2.0	4.2
8	Mo. 880 (Exp)	99.3	21.7	96.1	10.0	10.0	0	3.3
9	Kan. 1639	98.0	22.3	93.6	10.4	14.7	1.8	3.7
10	C.B. 7539 (Exp)	97.5	18.7	97.3	6.6	18.2	1.8	3.9
11	AES 803 (Nebr. 1219B)	97.4	19.3	96.1	5.0	39.1	1.4	3.2
12	N.E. 7830 (Exp)	97.1	21.6	93.4	3.3	23.5	2.7	3.9
13	Ia. 4531 (Exp)	96.9	21.7	94.2	6.5	25.3	1.2	3.9
13	Mo. 877 (Exp)	96.9	21.2	97.5	4.3	27.9	3.5	3.9
15	Mo. 837 (Exp)	96.6	21.7	93.4	9.9	40.1	1.6	3.8
16	Mo. 860 (Exp)	96.2	23.2	95.1	4.2	31.0	1.4	4.3
17	Mo. 4039W* (Exp)	95.7	24.9	95.9	17.4	19.0	0.9	4.0
18	Mo. 4040W* (Exp)	95.4	23.2	96.5	28.3	15.9	0.2	3.7
19	C.B. 8805 (Exp)	95.1	22.5	93.2	12.6	16.9	1.6	3.8
20	Nebr. 801W*	95.0	23.0	93.1	33.9	12.1	0.3	4.5
21	AES 801 (Ia. 4527)	94.5	21.0	92.7	4.1	13.5	0.7	3.2
22	C.B. 7530 (Exp)	94.3	20.3	93.6	18.8	32.2	1.6	3.8
23	Ia. 4476 (Exp)	94.2	23.4	97.7	2.9	27.8	0.2	3.9
24	Ohio C. 92	93.9	20.0	95.0	8.6	19.3	1.3	3.8
25	U.S. 523W*	92.4	33.5	98.4	13.4	14.9	0.6	4.7
26	Mo. 4022 W* (Exp)	92.2	30.0	95.0	5.9	19.7	0.5	3.7
27	U.S. 13	86.3	22.6	94.4	6.7	29.1	2.0	4.2
28	Mo. 148	85.5	21.7	89.0	12.6	22.0	3.6	4.3
	Means	97.2	22.8	94.8	10.7	23.5	1.3	4.0

*White Hybrids

TABLE 10--CENTRAL REGION 1951 PERFORMANCE RECORD FOR OPEN-PEDIGREED AND EXPERIMENTAL HYBRIDS TESTED NEAR COLUMBIA, MISSOURI, IN BOONE COUNTY;

Rank	Hybrid	Acre Yield Bu.	Moisture in Grain %	Stand %	Lodged Plants Root %	Lodged Plants Stalk %	Ear Height Grade
1	U.S. 523W*	90.7	20.3	98.8	0	1.3	4.0
2	U.S. 561 (Exp)	86.2	19.0	99.4	1.9	3.1	4.3
3	Mo. 804	85.6	18.5	96.9	0	0.7	4.0
4	C.B. 7610 (Exp)	82.4	22.6	98.1	1.9	1.3	4.0
5	(Kan. 1639) (U.S. 561) (Exp)	82.2	20.3	98.8	0	3.2	3.8
6	C.B. 9909 (Exp)	81.0	21.7	96.9	1.3	4.5	3.8
7	Mo. 843 (Exp)	80.4	20.8	98.1	0	1.9	3.0
8	Mo. 876 (Exp)	80.3	20.8	99.4	1.3	3.7	3.8
9	C.B. 9953 (Exp)	79.2	19.6	96.9	3.9	1.9	4.0
10	Mo. 846 (Exp)	78.9	19.6	98.8	0	3.2	4.0
11	Mo. 877 (Exp)	78.6	17.8	99.4	0	1.9	3.0
12	Mo. 862 (Exp)	78.1	24.4	98.8	1.3	0.6	3.8
13	Mo. 842 (Exp)	77.8	22.6	96.9	0	2.6	4.0
14	C.B. 7530 (Exp)	77.7	16.1	96.3	0	1.3	3.0
15	Mo. 4022W* (Exp)	77.5	22.2	97.5	0	1.9	3.3
15	N.E. 7830 (Exp)	77.5	17.3	94.4	0	1.3	3.0
17	Ia. 4476 (Exp)	76.7	19.6	94.4	0	4.0	3.0
18	C.B. 7632 (Exp)	75.9	25.8	98.8	0	1.3	4.0
19	Mo. 847 (Exp)	75.7	20.8	95.0	0	0.7	3.8
20	Mo. 860 (Exp)	74.1	19.8	96.9	0	5.2	3.8
21	U.S. 13	73.4	17.1	98.1	0	7.6	3.3
22	Kan. 1639	73.2	20.8	98.8	0	2.5	3.0
23	AES 801 (Ia. 4527)	71.2	21.1	95.6	0	2.6	3.0
24	Mo. 8	70.8	19.2	92.5	5.4	4.7	3.8
24	C.B. 8805 (Exp)	70.8	19.8	91.9	0	2.7	3.0
26	Mo. 845 (Exp)	69.0	22.2	98.8	0	1.9	3.8
27	Ohio C 92	68.7	17.2	92.5	0	0.7	3.3
28	Mo. 148	66.9	18.5	94.4	0	9.3	3.8
	Means	77.2	20.2	96.9	0.6	2.8	3.6

Differences in yield between any two hybrids of less than 6.3 bushels are not considered significant.
*White Hybrids

TABLE 11--SOUTHERN REGION, AVERAGE PERFORMANCE RECORDS FOR OPEN-PEDIGREED AND EXPERIMENTAL HYBRIDS TESTED IN NEWTON, LAWRENCE AND NEW MADRID COUNTIES

Rank	Hybrid	Acre Yield Bu.	Moisture in Grain %	Stand %	Lodged Plants Root %	Lodged Plants Stalk %	Ear Height Grade
1	Mo. 5365W* (Exp)	120.8	15.9	91.0	1.3	15.3	4.8
2	Dixie 17*	117.0	15.0	80.8	2.4	31.0	5.0
3	Dixie 33*	113.2	17.2	79.8	2.1	8.3	5.0
4	(U.S. 523W x Dixie 17)*(Exp)	111.6	15.1	90.5	0	16.9	4.5
5	U.S. 523W*	109.5	14.6	91.6	0	11.0	3.8
6	Dixie 22	107.4	17.0	83.6	0.7	24.0	5.0
7	U.S. 561 (Exp)	103.0	16.0	89.1	1.3	10.0	4.9
8	C. B. 7610 (Exp)	102.1	15.4	90.5	0	16.2	4.2
9	C.B. 7632 (Exp)	101.6	16.7	92.0	0	14.4	4.6
10	Mo. 804	98.9	14.8	84.0	0	13.0	4.2
11	Mo. 847 (Exp)	98.2	15.8	87.4	0	10.3	4.4
12	Mo. 862 (Exp)	97.9	17.4	90.6	0.9	13.0	4.1
13	C. B. 9953 (Exp)	97.8	14.8	88.3	0	9.8	3.6
14	C.B. 9947 (Exp)	97.7	16.6	87.4	0	7.6	3.9
15	Mo. 845 (Exp)	96.4	17.2	89.6	0.4	14.8	4.6
16	Mo. 846 (Exp)	96.1	16.4	93.7	0	28.5	4.1
17	Ia. 4476 (Exp)	94.9	15.3	92.7	0	15.9	3.0
18	Mo. 843 (Exp)	94.2	15.2	86.3	0	10.3	3.0
19	Mo. 842 (Exp)	92.1	15.6	85.6	0.3	23.9	3.4
20	U.S. 13	91.0	14.4	89.3	0	11.1	3.3
21	Kan. 1639	90.2	14.7	87.1	0	9.2	3.0
22	(Kan. 1639 x U.S. 561)(Exp)	90.0	15.3	89.1	0.4	17.0	3.8
23	N.E. 7830 (Exp)	89.5	13.9	85.7	0	8.5	3.2
24	Mo. 860 (Exp)	89.2	14.6	83.4	0	15.7	3.5
25	Ohio C 92	88.7	14.1	88.9	0.4	10.1	3.3
26	Mo. 8	88.2	15.3	87.1	0.5	15.3	3.9
27	C.B. 8805 (Exp)	86.5	16.7	90.3	0.9	11.2	3.1
28	Mo. 148	86.1	15.1	83.9	0	14.9	3.6
	Means	98.2	15.6	87.8	0.4	14.5	4.0

*White Hybrids

TABLE 12--1951 PERFORMANCE RECORD FOR OPEN-PEDIGREED AND EXPERIMENTAL HYBRIDS TESTED NEAR SHELBINA, MISSOURI, IN SHELBY COUNTY.

Rank	Hybrid	Acre Yield Bu.	Moisture in Grain %	Stand %	Lodged Plants Root %	Lodged Plants Stalk %	Dropped Ears %	Ear Height Grade
1	N.E. 7847 (Exp)	114.2	19.6	92.1	10.4	24.0	0.9	4.3
2	Mo. 843 (Exp)	112.2	23.4	88.3	4.7	17.9	2.4	3.8
3	Mo. 842 (Exp)	111.6	20.3	95.0	10.5	28.1	2.2	5.0
4	Mo. 860 (Exp)	108.1	20.6	93.8	3.6	22.2	2.7	4.3
5	Mo. 880 (Exp)	107.8	22.6	96.7	11.6	3.0	0	3.0
6	N.E. 7826 (Exp)	105.9	21.1	96.7	7.8	19.8	0	3.8
7	AES 803 (Nebr. 1219B)	105.1	19.8	92.1	5.0	34.4	1.4	3.0
8	Mo. 4029W* (Exp)	104.4	24.4	90.0	6.0	5.1	0.5	4.0
9	Ia. 4476 (Exp)	103.9	22.4	95.4	0.4	28.4	0.4	4.0
10	Nebr. 801W*	103.8	23.4	88.3	31.1	7.1	0.5	4.5
11	Kan. 1639	103.7	22.2	92.1	6.3	13.6	0.9	3.8
12	C.B. 7539 (Exp)	102.0	18.8	96.7	3.0	16.4	2.6	4.0
13	Mo. 840 (Exp)	101.9	21.4	93.3	3.6	42.0	0.4	4.0
14	Mo. 4009W* (Exp)	101.6	23.2	86.7	25.0	21.6	1.9	4.8
15	Mo. 877 (Exp)	100.1	22.2	95.0	5.3	22.4	4.4	4.0
16	C.B. 7530 (Exp)	99.4	20.9	90.4	19.8	22.1	1.8	3.8
17	Ia. 4531 (Exp)	99.2	23.7	92.5	9.0	27.9	1.4	4.0
18	Mo. 4040W* (Exp)	98.6	22.4	95.4	24.5	10.0	0.4	3.5
19	AES 801 (Ia. 4527)	98.2	22.4	90.8	4.1	14.7	1.4	3.0
20	Ohio C 92	98.5	19.2	90.0	12.5	15.3	0.5	3.8
21	Mo. 837 (Exp)	97.3	23.6	87.5	11.0	31.9	2.4	3.8
22	C.B. 8805 (Exp)	97.1	24.6	91.3	16.4	11.9	2.7	4.0
23	N.E. 7830 (Exp)	96.6	23.6	91.3	2.7	24.2	3.2	4.0
24	Mo. 4022W* (Exp)	95.1	30.5	92.9	5.8	23.8	0.9	3.8
25	Mo. 4039W* (Exp)	93.6	26.7	92.1	27.6	13.6	1.4	4.0
26	U.S. 13	93.3	22.2	90.8	9.6	22.5	1.8	4.3
27	U.S. 523W*	88.3	39.3	99.6	13.0	11.3	0.8	4.8
28	Mo. 148	86.9	21.4	82.9	11.6	17.6	4.0	4.5
	Means	101.0	23.1	92.1	10.7	19.7	1.6	4.0

Difference in yield between any two hybrids of less than 9.2 bushels are not consider significant.
*White Hybrids

TABLE 13--1951 PERFORMANCE RECORD FOR OPEN-PEDIGREED AND EXPERIMENTAL HYBRIDS TESTED NEAR PALYMRA, MISSOURI, IN MARION COUNTY.

Rank	Hybrid	Acre Yield Bu.	Moisture in Grain %	Stand %	Lodged Plants Root %	Lodged Plants Stalk %	Dropped Ears %	Ear Height Grade
1	N.E. 7826 (Exp)	106.9	19.7	97.9	14.5	33.2	0.4	4.3
2	N.E. 7847 (Exp)	106.8	22.2	99.6	14.2	22.2	1.7	4.3
3	Mo. 4009W* (Exp)	105.2	23.0	96.3	12.1	47.6	0.4	4.5
4	Mo. 843 (Exp)	100.0	23.2	100.0	7.5	25.4	1.3	3.5
5	Mo. 840 (Exp)	98.4	23.0	92.5	4.5	42.8	3.6	4.3
6	Mo. 4039W* (Exp)	97.8	23.0	99.6	7.1	24.3	0.4	4.0
7	N.E. 7830 (Exp)	97.6	19.6	95.4	3.9	22.7	2.2	3.8
8	Mo. 4029W* (Exp)	96.7	24.1	100.0	12.9	2.9	0.4	3.5
9	U.S. 523W*	96.4	27.6	97.1	13.7	18.5	0.4	4.5
10	Mo. 837 (Exp)	95.8	19.8	99.2	8.8	48.3	0.8	3.8
11	Mo. 842 (Exp)	95.7	25.6	99.2	16.4	41.2	0.8	4.3
12	Ia. 4531 (Exp)	94.5	19.5	95.8	3.9	22.6	0.9	3.8
13	Mo. 877 (Exp)	93.6	20.1	100.0	3.3	33.3	2.5	3.8
14	C.B. 7539 (Exp)	93.0	18.5	97.9	10.2	20.0	0.9	3.8
14	C.B. 8805 (Exp)	93.0	20.3	95.0	8.8	21.9	0.4	3.5
16	Kan. 1639	92.3	22.4	95.0	14.5	15.8	2.6	3.5
17	Mo. 4040W* (Exp)	92.2	23.9	97.5	32.1	21.8	0	3.8
18	Mo. 880 (Exp)	90.8	20.8	95.4	8.3	17.0	0	3.5
19	AES 801 (Ia. 4527)	90.7	19.5	94.6	4.0	12.3	0	3.3
20	AES 803 (Nebr. 1219B)	89.7	18.7	100.0	5.0	43.8	1.3	3.3
21	Mo. 4022W* (Exp)	89.3	28.6	97.1	6.0	15.5	0	3.5
22	C.B. 7530 (Exp)	89.2	19.7	96.7	17.7	42.2	1.3	3.8
22	Ohio C 92	89.2	20.8	100.0	4.6	23.3	2.1	3.8
24	Nebr. 801W*	86.2	32.6	97.9	36.6	17.0	0	4.5
25	Ia. 4476 (Exp)	84.4	24.4	100.0	5.4	27.1	0	3.8
26	Mo. 860 (Exp)	84.2	25.8	96.3	4.8	39.8	0	4.3
27	Mo. 148	84.0	22.0	95.0	13.6	26.3	3.1	4.0
28	U.S. 13	79.3	23.0	97.9	3.8	35.7	2.1	4.0
	Means	93.3	22.6	97.5	10.7	27.3	1.1	3.9

Differences in yield between any two hybrids of less than 9.1 bushels are not considered significant.
*White Hybrids

TABLE 14--1951 PERFORMANCE RECORD FOR OPEN-PEDIGREED AND EXPERIMENTAL HYBRIDS TESTED NEAR STARK CITY, MISSOURI, IN NEWTON COUNTY;

Rank	Hybrid	Acre Yield Bu.	Moisture in Grain %	Stand %	Lodged Plants Root %	Lodged Plants Stalk %	Ear Height Grade
1	Mo. 5365W* (Exp)	125.7	17.1	94.2	4.0	11.9	5.0
2	Dixie 17*	123.1	16.4	92.2	7.2	30.3	5.0
3	(U.S. 523W) (Dixie 17)* (Exp)	112.5	16.2	94.7	0	22.9	4.5
4	U.S. 523W*	112.3	15.2	95.1	0	13.6	4.0
5	Dixie 33*	111.4	17.6	92.2	6.3	13.6	5.0
6	U.S. 561 (Exp)	106.5	17.4	97.2	2.1	10.3	5.0
7	Dixie 22	106.0	18.2	93.8	2.2	25.3	5.0
8	C.B. 9947 (Exp)	104.6	17.0	95.9	0	7.0	4.0
9	C.B. 7610 (Exp)	102.9	17.1	95.1	0	25.4	4.3
10	Mo. 804	101.8	15.2	92.6	0	14.9	4.0
11	C.B. 7632 (Exp)	99.4	18.5	95.5	0	20.1	5.0
12	C.B. 9953 (Exp)	98.9	15.2	93.8	0	12.0	4.0
13	Mo. 847 (Exp)	96.9	15.7	93.0	0	12.6	4.5
14	Mo. 862 (Exp)	96.5	19.8	90.9	2.8	17.4	4.0
15	Mo. 842 (Exp)	96.0	16.1	89.7	0	32.6	3.5
15	N.E. 7830 (Exp)	96.0	14.0	95.1	0	12.3	3.0
17	Mo. 846 (Exp)	95.7	16.7	93.4	0	34.8	4.3
18	Mo. 845 (Exp)	94.8	17.6	95.5	1.3	26.2	5.0
19	(Kan. 1639) (U.S. 561) (Exp)	93.6	15.8	97.6	1.3	12.8	3.5
20	U.S. 13	92.2	15.7	93.4	0	17.9	3.5
21	Ohio C 92	91.9	14.5	93.4	1.3	13.8	3.5
21	Mo. 843 (Exp)	91.9	15.6	87.6	0	16.7	3.0
23	Kan. 1639	90.6	15.3	93.8	0	8.4	3.0
24	Ia. 4476 (Exp)	90.3	16.1	93.4	0	14.7	3.0
25	Mo. 860 (Exp)	87.8	16.7	93.8	0	27.6	3.8
26	C.B. 8805 (Exp)	87.0	16.2	94.2	2.7	11.1	3.0
27	Mo. 148	84.1	17.6	93.0	0	19.7	3.8
28	Mo. 8	82.7	16.6	87.2	1.4	20.1	3.5
	Means	99.0	16.5	93.5	1.2	18.0	4.0

Differences in yield between any two hybrids of less than 5.9 bushels are not considered significant.
*White Hybrids

TABLE 15--1951 PERFORMANCE RECORD FOR OPEN-PEDIGREED AND EXPERIMENTAL HYBRIDS TESTED NEAR PIERCE CITY, MISSOURI, IN LAWRENCE COUNTY.

Rank	Hybrid	Acre Yield Bu.	Moisture in Grain %	Stand %	Lodged Plants Root %	Lodged Plants Stalk %	Ear Height Grade
1	Mo. 5365W* (Exp)	109.9	16.4	83.8	0	9.0	4.5
2	Dixie 33*	102.9	17.7	52.5	0	2.4	5.0
3	Dixie 17*	99.9	15.4	58.8	0	10.6	5.0
4	Dixie 22	99.3	16.4	68.8	0	11.8	5.0
5	U.S. 523W*	97.6	15.3	84.4	0	6.7	3.3
6	C.B. 7632 (Exp)	96.9	15.7	86.3	0	3.6	4.3
7	(U.S. 523W) x (Dixie 17)* (Exp)	95.9	15.4	80.6	0	5.4	4.0
8	C.B. 7610 (Exp)	89.5	15.5	85.6	0	5.8	3.8
9	Mo. 847 (Exp)	88.2	17.1	75.0	0	3.3	4.5
10	U.S. 561 (Exp)	87.3	15.2	72.5	1.7	2.6	4.8
11	C.B. 9953 (Exp)	85.9	15.6	78.1	0	4.0	3.3
12	Mo. 845 (Exp)	84.8	18.5	75.0	0	0.8	4.5
13	Ia. 4476 (Exp)	84.3	14.8	88.8	0	3.5	3.0
13	Mo. 862 (Exp)	84.3	18.7	83.8	0	2.2	4.3
15	Mo. 846 (Exp)	83.6	18.5	91.9	0	15.6	4.0
16	Mo. 804	81.2	15.8	63.1	0	2.0	4.3
17	Mo. 843 (Exp)	80.1	15.2	78.1	0	0	3.0
18	C.B. 8805 (Exp)	79.3	14.6	82.5	0	4.5	3.0
19	C.B. 9947 (Exp)	78.6	17.8	75.0	0	1.7	3.8
20	Mo. 8	77.3	15.6	80.0	0	8.6	3.8
21	(Kan. 1639) (U.S. 561) (Exp)	77.0	14.9	76.3	0	5.7	3.8
22	U.S. 13	76.7	14.3	81.9	0	3.1	3.0
23	Mo. 860 (Exp)	74.9	14.3	65.6	0	6.7	3.0
24	Kan. 1639	74.2	15.8	75.0	0	2.5	3.0
25	Mo. 842 (Exp)	73.4	16.4	71.3	0.9	7.9	3.0
26	Ohio C 92	71.8	15.0	81.3	0	3.8	3.0
27	Mo. 148	68.0	14.7	64.4	0	8.7	3.0
28	N.E. 7830 (Exp)	66.2	14.1	67.5	0	0	3.0
	Means	84.6	15.9	76.0	0	5.1	3.8

Differences in yield between any two hybrids of less than 10.8 bushels are not considered significant.
*White Hybrids

TABLE 16--1951 PERFORMANCE RECORD FOR OPEN-PEDIGREED AND EXPERIMENTAL HYBRIDS TESTED NEAR SIKESTON, MISSOURI, IN NEW MADRID COUNTY.

Rank	Hybrid	Acre Yield Bu.	Moisture in Grain %	Stand %	Lodged Plants Root %	Lodged Plants Stalk %	Husk Cover Grade	Ear Height Grade
1	Dixie 17*	127.9	13.2	91.3	0	52.1	2.0	5.0
2	Mo. 5365W* (Exp)	126.7	14.3	95.0	0	25.0	3.0	4.8
3	(U.S. 523W) (Dixie 17)* (Exp)	126.5	13.8	96.3	0	22.5	2.3	5.0
4	Dixie 33*	125.3	16.4	94.6	0	8.8	2.3	5.0
5	U.S. 523W*	118.5	13.3	95.4	0	12.7	2.5	4.0
6	Dixie 22	116.9	16.3	88.3	0	34.9	2.0	5.0
7	U.S. 561 (Exp)	115.2	15.3	97.5	0	17.1	2.3	5.0
8	C.B. 7610 (Exp)	113.9	13.7	90.8	0	17.4	3.3	4.5
9	Mo. 804	113.7	13.4	96.3	0	22.1	3.5	4.3
10	Mo. 862 (Exp)	112.9	13.6	97.1	0	19.3	3.3	4.0
11	Mo. 843 (Exp)	110.7	14.8	93.3	0	14.3	3.5	3.0
12	Ia. 4476 (Exp)	110.0	15.0	95.8	0	29.6	3.5	3.0
13	C.B. 9947 (Exp)	109.9	15.1	91.3	0	14.2	3.3	4.0
14	Mo. 845 (Exp)	109.5	15.6	98.3	0	17.4	3.3	4.3
14	Mo. 847 (Exp)	109.5	14.7	94.2	0	15.0	3.0	4.3
16	Mo. 846 (Exp)	109.0	13.9	95.8	0	35.2	4.0	4.0
17	C.B. 7632 (Exp)	108.5	16.0	94.2	0	19.5	3.3	4.5
17	C.B. 9953 (Exp)	108.5	13.5	92.9	0	13.5	4.0	3.5
19	Mo. 842 (Exp)	106.9	14.4	95.8	0	31.3	3.8	3.8
20	N.E. 7830 (Exp)	106.4	13.7	94.6	0	13.2	3.5	3.5
21	Mo. 148	106.2	12.9	94.2	0	16.4	3.8	4.0
22	Kan. 1639	105.7	13.1	92.5	0	16.7	3.8	3.0
23	Mo. 860 (Exp)	104.8	12.7	90.8	0	12.8	3.8	3.8
24	Mo. 8	104.6	13.6	94.2	0	17.3	4.0	4.3
25	U.S. 13	104.0	13.3	92.5	0	12.2	3.5	3.5
26	Ohio C 92	102.3	12.9	92.1	0	12.7	4.0	3.3
27	(Kan. 1639) (U.S. 561) (Exp)	99.4	15.1	93.3	0	32.6	2.8	4.0
28	C.B. 8805 (Exp)	93.3	19.4	94.2	0	18.1	3.3	3.3
	Means	111.0	14.4	94.0	0	20.5	3.2	4.0

Differences in yield between any two hybrids of less than 10.5 bushels are not considered significant.
*White Hybrids

TABLE 17--DATA SECURED FROM THE MECHANICAL PICKER TEST CONDUCTED NEAR MARYVILLE, MISSOURI, IN NODAWAY COUNTY ON NOVEMBER 21, 1951.

Variety	Acre Yield Bu.[1]	Moisture in Grain %	Stand %	Stalk Lodged Plants %	Picked Clean Corn %	Picked Corn With Shucks %	Bu. Per Acre Remaining in Field	Shelled Corn Bu. Per Acre
U.S. 13	67.5	22.8	89.6	7.0	63.4	36.6	1.3	1.1
U.S. 35	94.0	20.8	100.0	6.4	64.3	35.7	1.7	1.1
U.S. 523W	62.0	30.5	81.3	7.7	50.0	50.0	1.6	0.8
Ia. 4476	92.0	24.9	86.9	4.7	66.4	33.6	1.2	0.9
Ohio C 92	90.1	19.1	93.9	3.2	73.8	26.2	1.4	1.4
C.B. 7502	82.0	23.2	81.1	5.3	65.0	35.0	0.9	0.9
Mo. 148	63.6	23.9	75.9	7.8	80.5	19.5	1.6	0.8
Mo. 843	72.9	28.6	65.6	3.4	69.6	30.4	1.6	0.8
Kan. 1639	112.4	19.4	100.0	8.1	64.8	35.2	3.7	1.7
Means	81.8	23.7	86.0	6.0	66.4	33.6	1.7	1.1

[1]Although the acre yields are given the reader should not rely on these data because of their inaccuracy. The acre yields for the same hybrids from the replicated yield trials (reported in Section I) are a much more valid estimate of yield performance.

TABLE 18--DATA SECURED FROM THE MECHANICAL PICKER TEST CONDUCTED NEAR JASPER, MISSOURI, IN JASPER COUNTY ON OCTOBER 18, 1951.

Variety	Acre Yield Bu.[1]	Moisture in Grain %	Stand %	Stalk Lodged Plants %	Picked Clean Corn %	Picked Corn With Shucks %	Bu. Per Acre Remaining in Field	Shelled Corn Bu. Per Acre
U.S. 13	81.9	14.6	81.4	16.5	85.2	14.8	13.2	4.5
Ia. 4476	59.0	14.9	50.2	25.9	70.5	29.5	9.8	1.7
Kan. 1639	81.4	14.6	78.0	13.3	78.3	21.7	7.3	4.1
Ohio C 92	84.0	14.6	80.2	26.9	86.9	15.2	11.5	4.4
C.B. 7526	66.9	15.0	51.6	26.7	74.3	25.7	12.5	1.7
Mo. 148	70.0	16.7	97.6	57.0	84.1	15.9	22.8	2.2
Mo. 804	86.7	19.2	96.2	63.6	81.7	18.3	26.6	1.5
Mo. 8	79.9	19.1	96.6	65.0	68.9	31.1	23.1	1.1
Mo. 846	78.2	18.3	87.4	72.8	84.3	15.7	29.4	1.3
U.S. 523W	99.2	17.4	83.4	54.7	59.1	40.9	10.7	1.9
Mo. 5365W	75.3	16.7	43.0	31.2	74.2	25.8	4.5	2.0
Dixie 33	92.5	17.5	93.0	57.0	61.3	38.7	23.8	1.8
Dixie 22	85.0	19.1	67.4	36.8	61.5	38.5	9.9	1.5
Mo. 313	75.2	14.6	79.2	23.0	81.9	18.1	12.3	4.0
Means	79.7	16.6	77.5	40.7	75.2	24.8	15.5	2.4

[1]Although the acre yields are given the reader should not rely on these data because of their inaccuracy. The acre yields for the same hybrids from the replicated yield trials (reported in Section I) are a much more valid estimate of yield performance.

TABLE 19--DATA SECURED FROM THE MECHANICAL PICKER TEST CONDUCTED NEAR SIKESTON, MISSOURI, IN NEW MADRID COUNTY ON OCTOBER 17, 1951.

Variety	Acre Yield Bu.[1]	Moisture in Grain %	Stalk Lodged Plants %	Picked Clean Corn %	Picked Corn With Shucks %	Bu. Per Acre Remaining in Field	Shelled Corn Bu. Per Acre
U.S. 13	87.3	13.5	12.3	43.6	56.4	2.6	2.4
Ia. 4476	98.6	12.7	10.4	31.8	68.2	0	1.2
Kan. 1639	95.1	12.8	3.5	42.6	57.4	1.4	2.0
Ohio C 92	93.1	12.1	2.3	37.1	62.9	0.6	2.3
C.B. 7526	98.4	13.3	7.5	25.2	74.8	2.7	1.4
Mo. 148	91.1	12.1	12.5	43.4	56.6	4.6	1.6
Mo. 804	94.6	12.7	12.3	42.2	57.8	3.1	1.3
Mo. 8	88.1	12.8	12.5	21.3	78.7	3.2	0.7
Mo. 846	94.9	12.4	27.9	54.8	45.2	11.7	1.2
U.S. 523W	98.0	13.3	1.0	20.8	79.2	0.7	0.9
Mo. 5365W	102.3	15.0	19.2	36.5	63.5	8.4	0.9
Dixie 17	99.0	15.3	40.8	36.0	64.0	12.3	1.2
Dixie 33	108.5	13.0	20.0	34.9	65.1	11.5	0.7
Dixie 22	97.1	15.6	27.9	44.4	55.6	7.5	0.6
Means	96.1	13.3	15.0	36.8	63.2	5.0	1.3

[1]Although the acre yields are given the reader should not rely on these data because of their inaccuracy. The acre yields for the same hybrids from the replicated yield trials (reported in Section I) are a much more valid estimate of yield performance.