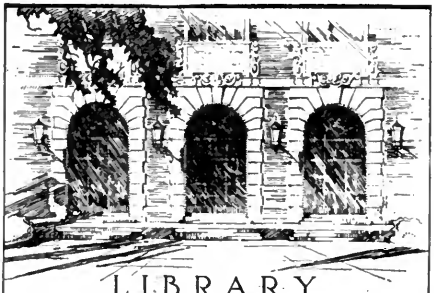
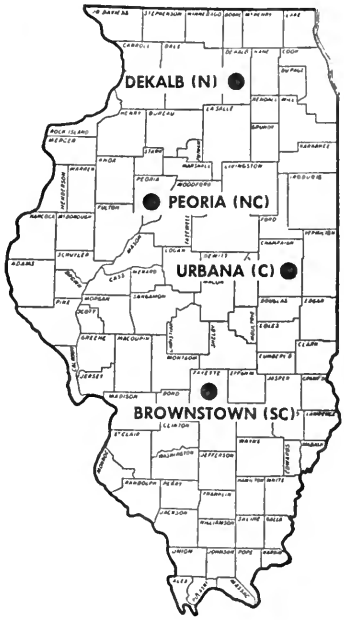


Bulletin 652

Performance of EXPERIMENTAL CORN HYBRIDS IN ILLINOIS 1959



LOCATION OF TEST FIELDS

By R. W. Jugenheimer,
K. E. Williams, and R. L. Harrison

NIVERSITY OF ILLINOIS · AGRICULTURAL EXPERIMENT STATION

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Acknowledgment is due W. T. Schwenk and Sons, Edwards, Illinois, for providing land for one of the tests. Trials in DeKalb, Champaign, and Fayette Counties were located on University of Illinois farms managed by R. E. Bell, C. H. Farnham, and P. E. Johnson. Thanks are due W. C. Jacob and Robert Seif for processing the data, and to H. M. Hayes, Earl Wernsman, S. S. Bal, P. S. Bhatnagar, N. S. Dass, P. S. Hoshiarpuri, and V. B. Malik for aid in field and laboratory. E. B. Earley supervised the oil and protein determinations.

Urbana, Illinois January, 1960

Publications in the Bulletin series report the results of investigations made or sponsored by the Experiment Station

PERFORMANCE OF EXPERIMENTAL CORN HYBRIDS IN ILLINOIS, 1959

By R. W. Jugenheimer, K. E. Williams, and R. L. Harrison[1]

The development and evaluation of better-performing inbred lines and hybrids remain an important objective of the Illinois Agricultural Experiment Station. This report summarizes the results of performance trials of experimental corn hybrids conducted in 1959. More than 750 different hybrids were compared in nearly 3,500 plots. Most of the hybrids were developed by the senior author. Data from preliminary tests involving specialized phases of the Illinois corn-research program are not included in this bulletin.

The University of Illinois does not produce hybrid seed corn in commercial quantities. Hybrids that include new inbred lines may be produced under the "delayed-release" program adopted by the states in the corn belt. Multiplication of a new line is handled by the Station, and the production of single crosses in quantity is handled by the Illinois Seed Producers Association, Champaign, Illinois. If a new Illinois experimental hybrid gives satisfactory performance, the parental lines eventually are released for use by seedsmen.

In order to make the results of corn research more quickly available to the public, the University of Illinois has adopted a slight modification of the "delayed-release" policy as it pertains to Illinois-developed inbred lines. Inbred lines of corn developed by the University of Illinois may be released to the public when they have demonstrated superior combining ability for yield, standability, disease resistance, insect resistance, chemical composition, male sterility, or other characters. Such Illinois lines may form a part of a new hybrid or be used in other ways by corn breeders. Inbred lines of corn developed by others will not be released without their approval.

Hand-pollinated seed of released Illinois inbred lines usually is available for a fee in packets containing 25 to 100 kernels. New releases are announced annually about April 1. Inquiries may be addressed to the Agronomy Department, University of Illinois, Urbana, Illinois.

Since most of the hybrids whose performance is recorded here are not yet in commercial use, the information about them is of most value to producers of hybrid seed. The 1959 performance of hybrids available to farmers in commercial quantities is reported in Bulletin 651 of this Station.

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[1] R. W. Jugenheimer, Assistant Dean and Assistant Director; K. E. Williams, Crops Testing Technician; R. L. Harrison, Research Assistant.

MATERIAL TESTED

Double crosses for consideration of seedsmen. Nearly 400 different double-cross hybrids were grown at four locations. The seed was produced by controlled hand-pollination. The double-cross hybrids whose performance is shown in this report and the tables in which each appears are shown in Table 15. This table also contains the pedigrees of the hybrids tested. *In the pedigrees, the order of the single crosses and of the lines in the single crosses has no significance; it does not indicate which should be used as seed or pollen parent.*

Illinois yellow hybrids are numbered consecutively below 2000 and above 3000. White hybrids are numbered in the 2000 series; these white hybrids are usually followed by the letter W. Hybrids that have performed well after regional testing in several corn-belt states have been designated AES (Agricultural Experiment Station) hybrids. Hybrids in the 600 series are similar to Illinois 1277 in maturity; those in the 700 series correspond in maturity to Illinois 21; those in the 800 series correspond to Illinois 1570; and those in the 900 series to Illinois 1851.

The letter A or B following an Illinois hybrid number indicates that the combination of inbred lines making up the hybrid has been rearranged or permuted. For example, if the original pedigree of an Illinois hybrid was (1×2) (3×4), the letter A following the number means that the hybrid was put together (1×3) (2×4), the letter B, (1×4) (2×3). A difference in reciprocals is not recognized in this method. When a short dash (–) followed by a number occurs as part of an Illinois hybrid number, it means that a tested related line has been substituted for one of the inbred lines included in the original hybrid.

Hybrids for prediction studies. Twelve sets of three-way crosses differing in maturity were tested in 1959. The three-way crosses in Tables 5, 7, and 11 are a part of the "uniform" tests conducted cooperatively by corn-belt states and the U. S. Department of Agriculture. Seed of the unreleased inbred lines involved in these crosses was contributed by the state or by the federal corn breeder who developed them. Three-way crosses whose performance is reported in Tables 3, 8, 12, and 13 were developed by the Illinois Station and tested only in Illinois.

Performance of single-cross, three-way-cross, and top-cross hybrids is of interest to corn breeders, producers of hybrid seed corn, and farmers. Characteristics of single crosses such as yield, standability,

and size, shape, and quality of seed definitely affect the practical production of hybrid seed corn. Some farmers are interested in growing single-cross and three-way-cross hybrids commercially because of their attractive appearance and extreme uniformity. Use of single-cross and three-way-cross data for the prediction of desirable double-cross combinations creates additional interest in the performance of single crosses and three-way crosses.

Prediction studies are an extremely valuable part of a research program. Methods are available to predict the performance of the better hybrid combinations without making and testing large numbers of undesirable crosses. For example, 1,225 single crosses and 690,900 double crosses are possible with 50 inbred lines. However, by using single-cross performance data, the corn breeder can predict which of the many possible double-cross combinations are likely to be most desirable. The following six single crosses can be made with four inbred lines: A × B, A × C, A × D, B × C, B × D, and C × D. The average performance of the four non-parental single crosses gives the predicted performance of a specific double-cross hybrid. For instance, the average yields of the four single crosses A × C, A × D, B × C, and B × D give the predicted yield of double cross (A × B) (C × D). The procedure in predicting acre yields and percentage of erect plants from single-cross data is shown on page 6 of Illinois Agricultural Experiment Station Bulletin 597.

Similar predictions can be made for other characteristics. Predicted hybrid combinations, however, should always be thoroughly tested under field conditions before being put into commercial production.

Three-way crosses also provide useful predictions of the performance of double-cross hybrids. A large number of inbred lines can be compared, and the method is especially valuable where a desirable seed-parent single cross is available for use as a tester. Three-way crosses provide information on specific hybrids and may often eliminate the time and expense required for testing inbred lines in top crosses and single crosses. The procedure in predicting acre yields and percentage of erect plants from three-way-cross data is also shown on page 6 of Bulletin 597.

Top crosses are simple to produce and often are useful in early stages of a breeding program. For example, a single cross from the corn belt of the United States might contribute genes for high yield and standability, and an open-pollinated variety from Europe might contribute adaptation to local European conditions. Such top crosses might

thus combine the desirable traits of the American single cross and the European open-pollinated variety. Most top crosses, however, are temporary expedients, which usually are eventually replaced by double crosses. Top crosses are useful also for evaluating the performance of inbred lines. They also provide a means of selecting promising open-pollinated varieties for use as source material for the development of inbred lines.

MEASURING PERFORMANCE

Trials were made at four locations: in DeKalb county in northern Illinois, in Peoria county in north-central Illinois, in Champaign county in central Illinois, and in Fayette county in south-central Illinois. These locations are representative of the soil, rainfall, and length of growing season in their respective areas.

Table 1. — GENERAL INFORMATION: Tests of Illinois Experimental Corn Hybrids, 1959

County[a]	Section of state	Table number	Plants per hill	Date of—	
				Planting	Harvesting
DeKalb	Northern	2–3	5	May 14	Oct. 13
Peoria	North-Central	4–5	5	May 18	Oct. 19
Champaign	Central	6	5	May 7	Oct. 15
Champaign	Central	7	5	May 28	Nov. 3
Champaign	Central	8	5	May 28	Oct. 28
Champaign	Central	9	5	May 28	Oct. 23
Fayette	South-Central	10–12	4	June 3	Nov. 10

[a] The fields are located near the following cities and towns: in DeKalb county near DeKalb, in Peoria county near Peoria, in Champaign county near Urbana, and in Fayette county near Brownstown.

Hybrids were compared for grain yield, maturity, shelling percentage, standability, ear height, dropped ears, and resistance to smut. Only hybrids of similar maturity were tested on the same field. A familiar hybrid whose maturity was considered the standard for the group is named in each table heading. Percentages of oil and protein in the grain were determined on special hybrids.

General information concerning the tests is given in Table 1.

Field plot design. The data in Tables 3, 5, 7, 8, 10, 11, 12, 13, and 14 were obtained in randomized blocks. Rectangular lattice designs were used for the data reported in Tables 2, 4, 6, and 9.

Method of planting. All plots in these tests were planted, thinned, and harvested by hand in well-fertilized fields prepared in the usual way for corn. Individual plots were 2×5 or 1×10 hills in area. Six kernels were planted in hills spaced 40 inches apart. Hills were thinned to 5 plants at DeKalb, Peoria, and Urbana, and to 4 plants at Brownstown.

Acre grain yields. Acre yields are reported as shelled grain containing 15.5 percent moisture, the maximum allowable for No. 2 corn. Data from all plots are included in the report on yield. The only correction for imperfect stands was the following adjustment for missing hills:

$$\text{Ear weight in field} \times \left[1 + \left(\frac{\text{missing hills}}{\text{hills present}} \times .7\right)\right] = \text{adjusted ear weight}$$

This adjustment adds 0.7 percent of the average hill yield for each missing hill, and assumes that 0.3 percent is made up by the increased yield of surrounding hills.

Shelling percentage and moisture in grain. All ears from one replication of each entry were shelled immediately after harvest. The percentage of moisture in the shelled grain was determined with a Steinlite moisture meter.

Stand. Counts of the number of missing hills and number of missing plants were made in late summer in each plot. The data are reported as percentage of a perfect stand. Yields were corrected for missing hills.

Ear height. Representative plants in each plot were measured to determine the distance in inches from the soil to the ear-bearing node.

Erect plants and dropped ears. Percentage of erect plants and of dropped ears in each plot of each entry was determined by actual counts at the time of harvest. Stalks broken above the ear were not considered lodged. Stalks leaning less than 45 degrees were considered as erect.

Leaf blight. Readings were recorded on all plots at DeKalb. A grade of 1 denotes the greatest amount of resistance, while a grade of 5 signifies extreme susceptibility to leaf blights.

Smutted plants. The number of smutted plants was recorded on all plots in late summer in fields having considerable smut infection. These data are reported in the tables as percent of smutted plants.

Oil and protein content. Percentage of oil and of protein was determined by standard procedures on representative grain samples.

RESULTS OF THE TESTS

Data obtained from the tests are summarized in Tables 2 to 14. Long-time averages are more reliable indexes of the performance of hybrids than a single year's result. The parts of the tables summarizing the results of two or three years therefore deserve the most weight when the results are studied.

Relative performance cannot be determined with absolute accuracy by any method of testing. Small differences between entries are seldom of any significance. In fact, small differences are to be expected among plots planted even with the same lot of seed. Variations in growing conditions such as soil fertility are reduced but not completely eliminated by replicating the same entry several times in the same test. Unavoidable variation may be determined by a mathematical procedure known as analysis of variance. From this procedure figures may be obtained that represent the range which differences between two entries must exceed before those entries can be considered significantly different. The method used to determine this range is called the "Multiple Range Test."[1] This method considers the number of entries that fall within the range as well as the variability of the test. Data shown in **boldface** were not statistically different from the best performance for that characteristic.

Double crosses. The performance of nearly 400 new double-cross hybrids is shown in Tables 2, 4, 5, 6, 7, 9, 10, and 11. Many of these hybrids were superior to popular combinations now being grown.

Three-way crosses. Data on three-way crosses are reported in Tables 3, 5, 7, 8, 11, 12, 13, and 14. These data permit predicting the performance of hundreds of promising double crosses. Some of the three-way-cross hybrids may be grown commercially because of their excellent performance, extreme uniformity, and attractive appearance.

High-oil and high-protein hybrids. Three new corn hybrids, Ill. 6021 ((R75 × R76) (R84 × K4)), Ill. 6052 ((R78 × 38-11) (R84 × K4)), and Ill. 6001 (R78 × (K4 × 38-11)), have been developed in the Agronomy Department of the University of Illinois. Foundation single-cross seed of these three hybrids is available to seedsmen interested in producing seed in 1960. Such seed may be obtained from the Illinois Seed Producers Association, 107 N. 5th Street, Champaign, Illinois. Seed of Ill. hybrids 6001, 6021, and 6052 for farm use is available for the 1960 growing season from the following producers:

[1] "Multiple Range and Multiple F Tests," by D. B. Duncan in *Biometrics* **11** (1), 1-43. 1955.

Illinois Seed Producers Association, 107 N. 5th Street, Champaign, Illinois; Mountjoy Seed Company, Atlanta, Illinois; George Pfeifer, Arcola, Illinois; Producers Seed Company, Piper City, Illinois; MFA, Marshall, Missouri; and Ruff Seed Company, Amanda, Ohio.

These new hybrids yield about 30 percent more oil and 10 percent more protein than present commercial hybrids. In addition, they are similar to standard hybrids in grain yield, standability, and other agronomic traits. Nationwide use of adapted high-oil hybrids would produce almost as much oil as is now received from butterfat, soybeans, cotton, and flax. These new high-oil hybrids should benefit both the starch industry and the livestock feeders.

Results of tests with high-oil and high-protein hybrids are given in Table 14.

Single crosses and hybrids involving related inbred lines. Some farmers are interested in hybrids with greater uniformity and performance than are available in double-cross hybrids. Single-cross hybrids are more attractive and uniform in appearance than other types of hybrids. The relatively high cost of producing seed of single crosses usually limits their use to situations where extreme uniformity is important.

Sister-line crosses are combinations between sister strains of the same inbred line. Some sister-line crosses have considerably greater yield, vigor, and standability than the original inbred line, and may be practical for the commercial use of single-cross hybrids. Data on a group of inbred lines and sister-line crosses were reported in Table 11 of Illinois Bulletin 636. Related versions of the same inbred are grouped together in Table 11A of Bulletin 636. Some growers are interested in producing Hy × Oh7 because of its high yield and ability to yield well under high plant populations. Hy2 yielded 35 bushels an acre, whereas a related sister-line cross R158 × CI.42A yielded 125 bushels per acre. This latter hybrid might be used as a seed parent. In addition, it is resistant to leaf blight and is higher in protein content. Oh7 yielded 51 bushels an acre, whereas Oh7 × Oh7A, a sister-line cross, yielded 85 bushels an acre. This cross might be used as the pollen parent for the commercial production of a modified version of Hy × Oh7. Many of the other sister-line crosses appear to be promising and could be used as seed parents of single crosses.

The performance of hybrids involving related inbred lines is given in Table 9 of this bulletin. Some of these hybrids produced higher grain yields, had greater uniformity of plant and ear, and appear to be more practical to produce than the original single-cross hybrids.

Table 2. — DOUBLE CROSSES OF ILLINOIS 1277 MATURITY Tested in Northern Illinois, 1957-1959

(Data in boldface were not statistically different from the best performance for that characteristic. Absence of boldface figures in some columns is due to lack of statistical information.)

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut	Leaf blight
	A — Three-year averages, 1957-1959									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*	*score*
1	Ill. 3152	**128**	28	**78**	**88**	**99**	43	...	...	...
2	Ill. 1952	**126**	**25**	**78**	**85**	**98**	44	...	...	...
3	Ill. 3009	**126**	**24**	**79**	**90**	**98**	48	...	...	...
4	Ill. 1936	**124**	27	**77**	**84**	**99**	45	...	...	...
5	Ill. 1961	**123**	**24**	**78**	**87**	**99**	47	...	...	...
6	Ill. 1862	**123**	29	**78**	**92**	**100**	**40**	...	...	...
7	Ill. 1559B	**120**	26	**77**	**83**	**97**	44	...	...	...
8	Ill. 1959	**120**	26	**78**	**91**	**98**	45	...	...	...
9	Ill. 3043	**120**	30	**79**	**92**	**97**	47	...	...	...
10	Ill. 1955	**120**	**24**	**77**	**90**	**97**	44	...	...	...
11	Ill. 1962	**120**	**24**	**78**	**87**	**97**	47	...	...	...
12	Ill. 1969A	**120**	29	**78**	**88**	**97**	48	...	...	...
13	Ill. 3046	**119**	27	**77**	**90**	**97**	49	...	...	...
14	AES 601	**119**	26	**77**	**82**	**98**	44	...	...	...
15	Ill. 1960	**119**	26	**79**	**84**	**99**	45	...	...	...
16	Ill. 1957	**118**	26	**78**	**83**	**99**	45	...	...	...
17	Ill. 1958	**118**	**24**	**78**	**82**	**96**	47	...	...	...
18	AES 702	**118**	28	75	**83**	**98**	48	...	...	...
19	AES 514	**115**	**23**	**78**	**94**	**99**	44	...	...	...
20	Ill. 1864	**115**	27	**77**	**81**	**99**	**41**	...	...	...
21	Ill. 2247W	**114**	28	76	**80**	**97**	49	...	...	...
22	Ill. 1091A	**113**	27	**77**	66	**98**	48	...	...	...
23	Ill. 1555A	111	**23**	76	**79**	**96**	46	...	...	...
24	AES 510	111	**24**	**77**	**78**	**96**	44	...	...	...
25	AES 610	111	**25**	**79**	**93**	**98**	**39**	...	...	...
26	Ill. 1277	110	27	**77**	68	**99**	45	...	...	...
27	Ill. 1560A	110	29	**78**	**80**	**96**	44	...	...	...
28	Ohio K24	107	26	**78**	**76**	**94**	**42**	...	...	...
29	Ohio M15	100	**24**	**78**	71	**91**	47	...	...	...
30	Ill. 101	100	26	**77**	65	**93**	44	...	...	...
31	Ill. 21	92	28	**77**	73	85	51	...	...	...
	Average	116	26	78	83	97	45	...	...	...
	B — Two-year averages, 1958-1959									
1	Ill. 3173	**134**	28	**82**	**89**	**100**	48	...	...	...
2	Ill. 3176B	**130**	31	77	**84**	**98**	47	...	...	...
3	Ill. 3152A	**128**	**26**	78	**83**	**100**	44	...	...	...
4	Ill. 3167B	**128**	30	78	**85**	**98**	49	...	...	...
5	Ill. 3152	**128**	28	78	**83**	**100**	44	...	...	...
6	Ill. 3169B	**127**	30	78	**84**	**98**	44	...	...	...
7	Ill. 1936	**126**	**27**	78	**78**	**100**	46	...	...	...
8	Ill. 1952	**126**	**26**	79	**79**	**98**	45	...	...	...
9	Ill. 3174	**125**	**26**	78	**84**	**100**	47	...	...	...
10	Ill. 1862	**124**	30	**80**	**88**	**100**	**42**	...	...	...
11	Ill. 1961	**123**	**24**	79	**82**	**100**	46	...	...	...
12	Ill. 3287	**123**	30	78	**94**	**98**	44	...	...	...
13	Ill. 1559B	**122**	**26**	78	**74**	**98**	44	...	...	...
14	Ill. 3009	**122**	**25**	79	**85**	**98**	50	...	...	...
15	Ill. 2247W	**122**	28	76	**70**	**99**	50	...	...	...
16	Ill. 1959	**122**	**26**	79	**88**	**98**	46	...	...	...
17	Ill. 1962	**121**	**24**	78	**82**	**98**	47	...	...	...
18	Ill. 1955	**119**	**24**	77	**86**	**100**	44	...	...	...
19	AES 601	**118**	**26**	77	**75**	**99**	45	...	...	...
20	Ill. 1958	**118**	**25**	78	**74**	**99**	47	...	...	...
21	Ill. 1960	**118**	**26**	79	**77**	**100**	45	...	...	...
22	Ill. 1969A	**117**	30	78	**84**	**98**	50	...	...	...

(Table is continued on next page)

Table 2. — Continued

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut	Leaf blight
B — Two-year averages, 1958-1959 — concluded										
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*	*score*
23	Ill. 1957	**116**	**27**	78	**74**	**100**	44	...	...	...
24	Ill. 3043	**116**	32	78	**88**	**98**	48	...	...	...
25	Ill. 3046	**116**	29	78	**86**	**99**	49	...	...	...
26	AES 610	114	**26**	79	**90**	**99**	**40**	...	...	...
27	AES 514	113	**25**	78	**92**	**100**	46	...	...	...
28	AES 702	113	29	76	**75**	**100**	49	...	...	...
29	Ill. 1091A	110	**27**	76	52	**99**	50	...	...	...
30	Ill. 1864	110	29	77	**72**	**100**	**42**	...	...	...
31	AES 510	109	**25**	76	**68**	**98**	45	...	...	...
32	Ill. 1555A	108	**24**	75	**70**	**98**	46	...	...	...
33	Ohio K24	108	**26**	79	66	94	44	...	...	...
34	Ill. 1560A	108	30	78	**70**	97	**43**	...	...	...
35	Ohio M15	108	**24**	**80**	60	**98**	47	...	...	...
36	Ill. 101	104	**27**	78	54	**100**	44	...	...	...
37	Ill. 1277	104	**26**	77	55	**100**	46	...	...	...
38	Ill. 21	100	28	77	63	**98**	52	...	...	...
39	Ill. 6052	100	35	76	62	**98**	56	...	...	...
40	Ill. 6021	95	32	76	63	**100**	57	...	...	...
	Average	117	27	78	77	99	46	...	...	...
C — 1959 results (3 replications)										
1	Ill. 3301	**132**	24	80	**95**	**100**	**40**	**0**	8	**1.4**
2	Ill. 3173	**130**	24	82	**91**	**99**	44	**1**	**3**	2.6
3	Ill. 3176B	**128**	28	77	**94**	**98**	42	**3**	8	**2.5**
4	Ill. 3303	**128**	25	79	**89**	**100**	43	**2**	**2**	**1.5**
5	Ill. 3270	**125**	25	77	**92**	**99**	**40**	**1**	**4**	**2.3**
6	Ill. 3152B1	**124**	26	77	**93**	**99**	**40**	**1**	8	**2.0**
7	Ill. 3379	**124**	24	79	**90**	**98**	42	**1**	**4**	2.7
8	Ill. 1952	**123**	22	78	**89**	**98**	42	**1**	10	**2.2**
9	Ill. 3152A	**123**	24	78	**93**	**100**	**41**	**1**	7	**2.3**
10	Ill. 1962	**122**	22	79	80	**99**	44	**0**	**3**	3.3
11	Ill. 3009	**122**	22	79	84	**99**	44	**3**	7	3.1
12	Ill. 3167B	**122**	27	78	**94**	**99**	44	**3**	**3**	**2.2**
13	Ill. 3300	**122**	25	78	82	**99**	43	**1**	**5**	**1.9**
14	Ill. 3383	**122**	25	79	**87**	**100**	44	**0**	**5**	2.6
15	Ill. 1959	**121**	22	78	**89**	**100**	44	**1**	7	3.1
16	Ill. 3268	**121**	27	80	**96**	97	42	**1**	9	**2.1**
17	Ill. 3311	**121**	27	78	**90**	**100**	43	**0**	**1**	**2.4**
18	Ill. 3382	**121**	26	79	**96**	**99**	45	**3**	**5**	2.8
19	Ill. 3266	**120**	26	79	**86**	96	**41**	6	**3**	2.6
20	Ill. 3271	**120**	26	81	**90**	**99**	**40**	**4**	9	3.1
21	Ill. 3381	**120**	25	79	**91**	**100**	44	**2**	**3**	2.8
22	Iowa 4967	**120**	26	78	84	**100**	45	7	**6**	**1.5**
23	Ill. 3174	**119**	25	78	83	**100**	47	**1**	**3**	2.8
24	Ill. 3267	**118**	26	77	**89**	96	44	8	**2**	2.8
25	Ill. 3274	**118**	26	77	**97**	**99**	44	**4**	**2**	3.0
26	Ill. 3310	**118**	27	78	**91**	**99**	**41**	**4**	**1**	**2.0**
27	Ill. 1955	117	21	79	80	**100**	43	**1**	11	3.6
28	Ill. 1960	117	23	78	**88**	**99**	42	**0**	9	**1.6**
29	Ill. 1961	117	23	79	83	**99**	43	**2**	**2**	3.0
30	Ill. 3169B	117	27	77	**91**	97	**41**	**3**	9	2.9
31	Ill. 3275	117	26	82	**91**	**99**	44	**1**	**3**	**2.0**
32	Ill. 3287	117	26	77	**93**	96	**40**	**1**	**4**	**1.3**
33	Ill. 3302	117	24	78	**92**	**99**	45	**3**	8	**2.4**
34	Ill. 3302A1	117	24	78	**92**	**100**	42	**0**	8	**1.4**
35	Ill. 3305	117	24	78	77	**99**	**40**	**3**	11	**2.2**
36	Ill. 1559B	116	23	80	**95**	97	**40**	**1**	7	**2.3**
37	Ill. 1862	116	26	79	**96**	**100**	**37**	**1**	12	**2.2**
38	Ill. 1936	116	22	78	84	**100**	43	**3**	**6**	3.0
39	Ill. 3043	115	27	78	**91**	**99**	45	**4**	**4**	3.0
40	Ill. 3152	115	24	77	**92**	**99**	**41**	**1**	11	2.7

(Table is concluded on next page)

Table 2. — Concluded

Rank in yield or code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut	Leaf blight
	C — 1959 results (3 replications) — concluded									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*	*perct.*
41	Ill. 3313	115	23	80	**96**	**98**	43	**4**	**6**	**1.8**
42	Ill. 3380	115	25	79	**92**	**100**	46	5	**2**	2.6
43	Ill. 2247W	114	24	77	80	**100**	47	8	**6**	2.7
44	Ill. 3152A1	114	23	79	**93**	**100**	**40**	**2**	**6**	**1.9**
45	Ill. 3309-1	114	25	77	**90**	**100**	44	5	**4**	2.6
46	Ill. 3046	113	25	77	**90**	**99**	44	**2**	**2**	**1.7**
47	Ill. 1957	112	23	79	84	**100**	44	**3**	**3**	3.1
48	Ill. 3179	112	26	80	52	**99**	49	**3**	**5**	3.7
49	Ill. 3272	112	27	80	**97**	**100**	43	**2**	8	2.8
50	Ill. 3309	112	26	76	**88**	**99**	46	**3**	**2**	**2.5**
51	Ill. 3312	112	27	80	**94**	**99**	43	**1**	**1**	**2.3**
52	Ill. 3312-1	112	25	73	**86**	**99**	43	**3**	**3**	**1.9**
53	Ill. 1958	111	22	80	82	**99**	43	**0**	**4**	**1.9**
54	Ill. 1969A	111	26	78	**93**	**99**	45	**4**	**4**	**2.2**
55	Ill. 3152-1	111	24	78	**91**	**99**	**38**	**2**	**6**	**2.4**
56	Ill. 3269	111	26	77	**93**	**99**	**41**	**1**	**3**	**2.1**
57	Ill. 3307	109	26	76	**85**	**99**	47	**1**	**2**	**2.2**
58	AES 610	108	22	79	**93**	**99**	**40**	**2**	**3**	**2.5**
59	Ill. 3300A	108	25	77	**87**	**99**	**41**	**1**	**6**	**1.7**
60	AES 514	107	23	78	**95**	**100**	45	**2**	**3**	**2.2**
61	Ill. 3273	107	28	78	**96**	96	**40**	6	**5**	2.7
62	Ill. 3308	107	25	78	**85**	**100**	48	**3**	**4**	**2.0**
63	Ill. 6109	107	25	76	78	**100**	50	7	9	3.3
64	Ill. 3152B	106	23	75	**87**	**99**	42	**1**	7	**2.4**
65	Ill. 3304	106	27	76	**91**	**98**	42	**0**	14	**2.5**
66	Ill. 1560A	105	26	78	**90**	97	**40**	**2**	9	2.6
67	Ill. 3265	104	28	78	**93**	**99**	42	**3**	**4**	**2.5**
68	Iowa 5052	104	24	74	**92**	97	**41**	7	**3**	**2.4**
69	Ohio K24	103	25	79	68	97	43	5	**4**	3.0
70	AES 510	102	22	77	**85**	**99**	42	7	14	2.7
71	Ill. 3306	100	26	76	**86**	**100**	46	5	**2**	**1.5**
72	AES 601	99	23	77	**88**	**99**	**40**	**2**	7	3.7
73	Ill. 1091A	99	24	76	72	**99**	46	**3**	7	3.9
74	Ill. 1555A	96	21	76	76	97	43	**2**	10	3.1
75	Ill. 6115	96	23	75	79	**100**	45	8	**3**	**2.3**
76	Ohio M15	96	22	78	57	97	44	**2**	**5**	3.3
77	Ill. 1864	95	26	77	**86**	**100**	**38**	**2**	7	2.9
78	Ill. 6021	93	25	77	74	**99**	52	5	**6**	3.0
79	AES 702	92	25	74	**94**	**100**	44	8	**6**	**2.4**
80	Ill. 6052	92	30	77	67	**100**	49	**3**	13	3.5
81	Ill. 101	89	24	77	**85**	**100**	**40**	**2**	13	3.0
82	Ill. 21	86	25	76	77	**99**	48	**2**	8	4.6
83	Ill. 1277	84	23	77	79	**99**	**41**	**2**	**5**	4.0
	Average	112	25	78	87	99	43	3	6	2.5
	D — Single and sister-line crosses									
84	Hy2×WF9	86	26	74	83	**100**	44	**3**	**6**	4.0
85	(R158×CI.42)(WF9×R75)	79	25	76	75	**99**	51	6	**4**	3.4
86	Hy2×Oh7	**124**	26	80	81	**99**	53	**3**	**3**	3.1
87	(R158×CI.42A)(Oh7×Oh7A)	96	29	77	83	**100**	54	**3**	**5**	3.1
88	Hy2×187-2	90	26	78	63	**99**	50	9	**2**	4.0
89	(R158×CI.42A)(R84×W187R)	60	26	75	67	**99**	51	9	**6**	5.0
90	R158×CI.42A	87	28	75	80	**99**	54	11	**3**	2.9
	Average	89	26	76	76	99	51	6	4	3.6

Table 3. — THREE-WAY CROSSES AND STANDARDS Tested in Northern Illinois, 1959

(Data in boldface were not statistically different from the best performance for that characteristic)

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Height		Dropped ears	Smut	Leaf blight
							Plant	Ear			
	A — Inbred lines crossed with (WF9 × Oh43)										
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*in.*	*perct.*	*perct.*	*score*
1	R71	114	28	**82**	**97**	**98**	**84**	**38**	**3**	**3**	4.0
2	R74	99	26	**80**	**92**	**97**	88	**36**	**0**	**3**	**2.0**
3	R74A	91	27	75	**98**	**99**	87	**36**	**1**	8	**1.5**
4	R76	111	26	79	69	**95**	94	48	10	**2**	**2.0**
5	R78	116	27	**82**	**89**	**94**	88	**41**	**3**	**3**	**2.0**
6	R84	95	25	**80**	**82**	88	88	46	7	11	3.0
7	R101	105	25	79	**93**	**97**	91	**40**	**0**	9	4.0
8	R104	100	26	**83**	**81**	**98**	86	**40**	**1**	**1**	4.0
9	R109B	109	26	**82**	**97**	**93**	88	42	**0**	**1**	3.0
10	R112	115	25	**83**	**96**	**96**	94	**40**	**5**	10	2.5
11	R113	113	24	79	**82**	**100**	**84**	**40**	**1**	**3**	2.5
12	R114	108	24	79	**91**	**95**	98	**41**	**1**	**3**	**2.0**
13	R132	114	27	**80**	67	**99**	92	44	**1**	**0**	3.0
14	R134	**136**	27	79	**93**	92	96	46	**4**	**3**	**2.0**
15	R135	96	25	**83**	76	88	92	45	**4**	**2**	**2.0**
16	R151	**134**	27	**82**	**83**	**99**	92	42	**5**	**2**	3.0
17	R154	**134**	24	**80**	**86**	92	96	42	**2**	**2**	2.5
18	R158	107	24	**81**	**92**	**100**	98	42	**6**	**1**	2.5
19	R159	107	28	**80**	**88**	**97**	86	**40**	**2**	**1**	2.5
20	R166	92	26	**82**	**87**	92	**80**	**35**	**1**	**2**	3.0
21	R168	**123**	23	**82**	**92**	**99**	86	**41**	**0**	**2**	**2.0**
22	R172	**125**	25	**81**	**94**	**99**	90	42	**0**	**0**	**1.5**
23	R180	93	27	79	**87**	**96**	86	**40**	**4**	**4**	3.5
24	R181	**120**	**20**	**80**	73	**96**	88	**38**	**2**	**0**	3.5
25	R182	109	25	**81**	**96**	92	96	**41**	**4**	**4**	3.0
26	R183	82	26	78	76	**98**	94	44	**1**	**3**	**1.5**
27	R192	101	26	79	**90**	**99**	96	44	**2**	15	3.0
28	R193	115	26	**80**	**93**	**98**	92	**40**	**4**	**5**	2.5
29	R194	100	28	79	77	**99**	88	42	**3**	**2**	**2.0**
30	R195	104	24	79	**89**	**99**	94	46	**2**	**3**	4.5
31	R196	104	25	**80**	**96**	**100**	92	44	**3**	**0**	3.5
32	R197	117	29	**80**	**85**	**98**	93	47	**6**	**0**	2.5
33	R198	108	27	**81**	**86**	**98**	94	47	**4**	11	**2.0**
	Average...	109	26	80	87	96	91	42	3	4	2.7
	B — Single crosses										
34	WF9×Oh43	108	27	**81**	**94**	**98**	87	**39**	**6**	**3**	2.5
35	WF9×B37	95	28	75	**98**	**100**	92	42	**5**	9	3.5
36	B41×Oh7A	71	32	74	56	**94**	94	51	**1**	**1**	4.0
	Average...	91	29	77	83	97	91	44	4	4	3.3
	C — Inbred lines crossed with (WF9 × B37)										
1	R71	103	29	75	**99**	89	**94**	48	**4**	**2**	4.0
2	R74	95	29	76	**100**	69	**93**	**45**	**3**	**7**	2.5
3	R74A	64	30	68	**97**	**100**	98	**45**	**2**	**3**	**1.0**
4	R76	93	27	75	**90**	**96**	**96**	52	**6**	12	3.0
5	R78	101	28	**78**	84	**95**	**94**	**41**	**3**	**9**	2.0
6	R84	73	**25**	75	**89**	**96**	**96**	50	**3**	12	4.5
7	R101	85	**25**	75	**89**	**98**	**92**	**46**	**0**	**7**	3.5
8	R104	99	26	**80**	79	**99**	**92**	48	**5**	**1**	4.0
9	R109B	103	27	77	**99**	**97**	**94**	**46**	**2**	**4**	2.5
10	R112	**109**	26	**80**	**98**	**100**	**90**	48	**6**	**6**	2.5
11	R113	106	**24**	76	**93**	**100**	**91**	50	**2**	**1**	3.0
12	R114	**107**	28	76	**99**	**99**	98	48	**1**	**2**	2.5
13	R132	101	**25**	77	56	**95**	**94**	**46**	**2**	**3**	4.0
14	R134	**108**	28	74	**94**	**95**	**96**	**46**	10	**8**	2.0
15	R135	92	**25**	77	83	79	**96**	52	**6**	**6**	**1.5**

(Table is continued on next page)

Table 3. — Continued

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Height		Dropped ears	Smut	Leaf blight
							Plant	Ear			
C — Inbred lines crossed with (WF9 × B37) — continued											
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*in.*	*perct.*	*perct.*	*score*
16	R151	**130**	29	**79**	**91**	**99**	98	53	**6**	**0**	2.5
17	R154	**122**	26	**79**	78	**97**	**96**	52	**1**	**0**	2.5
18	R158	91	**25**	77	**90**	89	98	48	**5**	**3**	4.5
19	R159	97	27	76	**94**	**100**	**93**	50	**1**	**6**	**1.0**
20	R166	98	26	**80**	**90**	**97**	**92**	**46**	**2**	10	3.0
21	R168	**125**	**25**	**78**	**99**	**98**	**90**	**45**	**0**	**8**	2.5
22	R172	**107**	26	76	**95**	**100**	**92**	49	**1**	**1**	**1.5**
23	R180	92	27	77	**97**	**94**	**90**	**46**	**5**	**3**	3.5
24	R181	**123**	**23**	76	**89**	**100**	**94**	**45**	**2**	**2**	2.5
25	R182	82	**24**	76	**97**	68	98	48	**3**	**7**	2.5
26	R183	56	29	75	**98**	**98**	**96**	51	**0**	**1**	**1.5**
27	R192	104	27	76	87	**96**	98	50	**0**	12	2.0
28	R193	96	28	76	**91**	**100**	**94**	**47**	**4**	**3**	2.5
29	R194	**109**	30	77	**96**	**96**	**93**	52	**3**	**7**	2.0
30	R195	103	**24**	76	**91**	**98**	**92**	50	**3**	**8**	3.5
31	R196	**118**	26	76	**94**	**99**	97	50	**2**	**7**	2.5
32	R197	**125**	31	77	78	**98**	**95**	52	**2**	**5**	2.5
33	R198	96	31	77	82	**100**	98	52	9	11	2.0
	Average...	100	27	76	90	95	94	48	3	5	2.6
D — Single crosses											
34	WF9×Oh43	100	28	76	**97**	**98**	**92**	**42**	**5**	**3**	2.0
35	WF9×B37	85	28	74	**99**	**96**	**90**	48	**4**	15	2.5
36	B41×Oh7A	24	35	66	42	**97**	**91**	50	**0**	**0**	4.0
	Average...	70	30	72	79	97	91	47	3	6	2.8
E — Inbred lines crossed with (B41 × Oh7A)											
1	R71	80	31	78	**89**	**98**	90	**48**	**2**	**4**	3.5
2	R74	**119**	28	77	**92**	**99**	92	**49**	**1**	**2**	2.0
3	R74A	25	30	75	**96**	**100**	92	50	**4**	12	**1.5**
4	R76	**105**	30	74	76	**100**	98	52	**2**	9	2.5
5	R78	63	31	77	59	**100**	92	50	**0**	8	2.5
6	R84	41	29	76	**82**	**98**	90	54	6	10	3.0
7	R101	79	26	77	80	**99**	91	50	**3**	**3**	4.0
8	R104	89	27	78	71	**100**	90	54	**3**	**0**	3.5
9	R109B	**105**	30	79	**93**	**100**	92	52	**2**	**7**	2.5
10	R112	91	28	78	**95**	**99**	92	**45**	**3**	10	**1.0**
11	R113	78	**25**	77	**94**	**99**	**87**	**49**	**1**	**1**	2.5
12	R114	98	27	75	**90**	**98**	97	52	**2**	**4**	2.0
13	R132	83	27	76	57	97	94	52	**5**	**2**	4.5
14	R134	97	30	**80**	**85**	**100**	93	**49**	13	**3**	**1.5**
15	R135	51	29	78	**92**	**100**	92	50	7	**7**	3.0
16	R151	**122**	28	79	75	**100**	97	52	8	**2**	2.0
17	R154	**107**	27	79	80	**100**	96	54	6	**2**	2.5
18	R158	92	27	78	**93**	94	96	51	**3**	**0**	3.5
19	R159	71	33	75	**95**	**100**	94	**48**	**1**	**6**	**1.0**
20	R166	68	29	76	60	**100**	**84**	**46**	**1**	**3**	2.5
21	R168	**108**	26	**83**	**97**	**100**	**88**	**46**	**1**	**4**	**1.5**
22	R172	95	26	78	**86**	**99**	94	54	**1**	**5**	**1.0**
23	R180	73	28	76	70	**100**	**86**	**44**	**3**	**3**	3.5
24	R181	**117**	**23**	76	73	**100**	92	**48**	**1**	**3**	3.5
25	R182	94	27	79	**94**	**98**	94	**48**	**3**	**0**	**1.5**
26	R183	70	28	77	**95**	96	92	54	**4**	**2**	**1.5**
27	R192	70	29	75	**85**	97	92	50	**0**	9	3.0
28	R193	87	27	75	**86**	**100**	91	**46**	6	**1**	2.5
29	R194	47	34	78	**92**	**100**	90	50	**4**	**5**	2.5
30	R195	76	27	75	**98**	**99**	91	52	**3**	**3**	3.0
31	R196	78	28	75	**84**	**98**	92	54	**3**	**2**	2.5
32	R197	**106**	30	77	**84**	**100**	92	52	**2**	**0**	2.5
33	R198	84	31	77	60	**99**	94	56	**1**	**3**	2.0
	Average...	84	28	77	84	99	92	50	3	4	2.5

(Table is concluded on next page)

Table 3. — Concluded

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Height		Dropped ears	Smut	Leaf blight
							Plant	Ear			
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*in.*	*perct.*	*perct.*	*score*
F — Single crosses											
34	WF9×Oh43....	104	28	**81**	**95**	**99**	89	**42**	**5**	**1**	**1.0**
35	WF9×B37.....	72	27	74	**94**	**100**	92	**47**	**1**	10	2.0
36	B41×Oh7A....	41	34	72	42	**99**	90	50	**1**	**2**	2.5
	Average...	72	30	76	77	99	90	46	2	4	1.8
G — Mean of inbred lines crossed with three testers											
1	R71.....	99	29	78	**95**	95	**89**	**45**	**3**	**3**	3.8
2	R74.....	104	28	78	**95**	88	91	**43**	**1**	**4**	**2.2**
3	R74A.....	60	29	73	**97**	**99**	92	**44**	**2**	8	**1.3**
4	R76.....	103	28	76	78	**97**	96	51	6	8	2.5
5	R78.....	93	29	79	77	96	91	**44**	**2**	7	**2.2**
6	R84.....	70	26	77	84	94	91	50	5	11	3.5
7	R101.....	90	25	77	87	**98**	91	**45**	**1**	6	3.8
8	R104.....	96	26	**80**	77	**99**	**89**	47	**3**	**1**	3.8
9	R109B.....	105	28	79	**96**	**97**	91	47	**1**	**4**	2.7
10	R112.....	105	26	**80**	**96**	**98**	92	**44**	5	9	**2.0**
11	R113.....	99	24	77	**90**	**99**	**87**	46	**1**	**2**	2.7
12	R114.....	104	26	77	**93**	**97**	98	47	**1**	**3**	**2.2**
13	R132.....	99	26	78	60	**97**	93	47	**3**	**2**	3.8
14	R134.....	114	28	78	**91**	96	95	47	9	**5**	**1.8**
15	R135.....	80	26	79	84	89	93	49	6	**5**	**2.2**
16	R151.....	**129**	28	**80**	83	**99**	96	49	6	**1**	2.5
17	R154.....	**121**	26	79	81	96	96	49	**3**	**1**	2.5
18	R158.....	97	25	79	**92**	94	97	47	5	**1**	3.5
19	R159.....	92	29	77	**92**	**99**	91	46	**1**	**4**	**1.5**
20	R166.....	86	27	79	79	96	**85**	**42**	**1**	**5**	2.8
21	R168.....	**119**	25	**81**	**96**	**99**	**88**	**44**	**0**	**5**	**2.0**
22	R172.....	109	26	78	**92**	**99**	92	48	**1**	**2**	**1.3**
23	R180.....	86	27	77	85	**97**	**87**	**43**	4	**3**	3.5
24	R181.....	**120**	**22**	77	78	**99**	91	**44**	**2**	**2**	3.2
25	R182.....	95	25	79	**96**	86	96	46	**3**	**4**	2.3
26	R183.....	69	28	77	**90**	**97**	94	50	**2**	**2**	**1.5**
27	R192.....	92	27	77	87	**97**	95	48	**1**	12	2.7
28	R193.....	99	27	77	**90**	**99**	92	**44**	5	**3**	2.5
29	R194.....	85	31	78	**88**	**98**	90	48	**3**	**5**	**2.2**
30	R195.....	94	25	77	**93**	**98**	92	49	**3**	**5**	3.7
31	R196.....	100	26	77	**91**	**99**	94	49	**3**	**3**	2.8
32	R197.....	116	30	78	82	**99**	93	50	**3**	**2**	2.5
33	R198.....	96	30	78	76	**99**	95	52	5	8	**2.0**
	Average...	98	27	78	87	97	92	47	3	4	2.6
H — Mean of three single-cross testers											
34	WF9×Oh43....	104	28	79	**95**	**98**	**89**	**41**	5	**2**	**1.8**
35	WF9×B37.....	84	28	74	**97**	**99**	91	46	**3**	11	2.7
36	B41×Oh7A....	45	34	71	47	**97**	92	50	**1**	**1**	3.5
	Average...	78	30	75	80	98	91	46	3	5	2.7

Table 4. — DOUBLE CROSSES OF ILLINOIS 21 MATURITY Tested in North-Central Illinois, 1957-1959

(Data in boldface were not statistically different from the best performance for that characteristic. Absence of boldface figures in some columns is due to lack of statistical information.)

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	A — Three-year averages, 1957-1959								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
1	Ill. 3042	**125**	23	80	**92**	**94**	46	**1**	..
2	Ill. 3026	**123**	22	80	**89**	**96**	**41**	**1**	..
3	Ill. 3022	**122**	**20**	81	**89**	92	44	**1**	..
4	Ill. 3029	**120**	21	80	**91**	93	**42**	**0**	..
5	Ill. 3010	**119**	21	80	86	**97**	47	2	..
6	AES 805	**119**	21	80	81	**96**	48	2	..
7	Ill. 3023A	**119**	**19**	**82**	**88**	**97**	**40**	**0**	..
8	Ill. 3021	**118**	22	81	**93**	**97**	43	2	..
9	AES 703	**118**	**20**	80	**93**	93	43	**0**	..
10	Ill. 3160	**117**	**20**	**82**	**96**	**96**	44	**0**	..
11	Ill. 1968	**116**	**19**	**83**	86	**94**	46	**0**	..
12	Ill. 3032	**116**	**20**	81	87	**95**	**42**	**1**	..
13	Ill. 1332	**115**	**19**	81	80	**95**	48	**1**	..
14	Ill. 3039	**115**	21	79	**91**	**97**	43	**1**	..
15	Ill. 1971	**114**	**20**	**83**	83	**96**	46	**1**	..
16	Ill. 3017	**114**	21	80	**93**	**95**	44	**1**	..
17	Ill. 1969	113	**20**	**82**	**93**	**96**	47	**1**	..
18	Ill. 3020	112	**20**	80	**91**	**99**	**40**	**1**	..
19	Ill. 3043	111	**20**	**82**	**93**	**96**	45	2	..
20	Ill. 1921	110	23	79	**89**	93	48	**1**	..
21	Ill. 1966	110	**20**	79	82	93	46	**1**	..
22	AES 705	109	21	80	**91**	**98**	44	**1**	..
23	Ill. 3030	109	21	79	**95**	**96**	43	**1**	..
24	Ill. 21	108	21	81	76	93	48	2	..
25	Ill. 1928	108	23	79	87	92	52	**1**	..
26	Ill. 1831	107	22	81	86	**94**	**42**	**1**	..
27	AES 704	106	21	79	**97**	91	**42**	**1**	..
28	Ill. 1570	106	21	79	74	**96**	48	3	..
29	AES 702	105	21	79	80	92	45	**1**	..
30	Iowa 4297	98	21	80	78	**96**	45	2	..
	Average	113	21	80	88	95	45	1	..
	B — Two-year averages, 1958-1959								
1	Ill. 3042	**124**	22	82	**92**	**97**	47	**1**	..
2	Ill. 3022	**124**	20	82	**92**	95	46	**1**	..
3	Ill. 3029	**122**	21	82	**92**	**96**	**44**	**0**	..
4	Ill. 3026	**121**	21	81	**92**	**96**	**44**	**2**	..
5	Ill. 3015B	**120**	20	82	**94**	95	46	4	..
6	Ill. 3021	**119**	20	82	**93**	**99**	**44**	**2**	..
7	Ill. 1968	**118**	**18**	**84**	**90**	**97**	46	**0**	..
8	AES 805	**118**	20	80	82	**98**	50	3	..
9	Ill. 3010	**117**	20	81	**88**	**98**	48	3	..
10	Ill. 3160	**117**	20	**83**	**98**	**96**	46	**0**	..
11	Ill. 3291	**116**	20	**84**	**92**	**98**	46	**1**	..
12	Ill. 3294	**116**	21	82	**86**	**99**	52	4	..
13	AES 703	**116**	20	80	**94**	94	46	**0**	..
14	Ill. 3023B	**116**	21	82	**90**	**98**	**44**	**1**	..
15	Ill. 3023A	**116**	**19**	**83**	**88**	**98**	**42**	**0**	..
16	Ill. 1969	**114**	20	**83**	**92**	**98**	48	**2**	..
17	Ill. 3039	**114**	20	79	**92**	**99**	**44**	**2**	..
18	Ill. 3017	**113**	20	80	**94**	**96**	46	**1**	..
19	Ill. 3032	**113**	20	82	**86**	95	**44**	**1**	..
20	Ill. 1332	**112**	**18**	82	82	94	51	**2**	..
21	Iowa 4991	**112**	21	82	**97**	**97**	**44**	**0**	..
22	AES 705	**111**	20	80	**92**	**98**	46	**2**	..

(Table is continued on next page)

Table 4. — Continued

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	B — Two-year averages, 1958-1959 — concluded								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
23	Ill. 1921	**111**	22	80	**88**	**98**	50	**2**	..
24	Ill. 1971	**111**	**19**	**83**	**89**	95	48	**1**	..
25	Ill. 3043	**110**	20	82	**93**	**97**	46	**2**	..
26	Ill. 1966	**109**	20	79	84	**96**	49	**2**	..
27	Ill. 3020	**109**	20	80	**92**	**98**	**40**	**2**	..
28	Iowa 4989	**109**	20	80	**96**	**96**	48	**0**	..
29	AES 704	**108**	20	79	**98**	**96**	**44**	**2**	..
30	Ill. 2249W	**108**	20	81	82	**97**	52	12	..
31	Ill. 3030	**108**	20	80	**95**	**96**	**44**	**1**	..
32	Ill. 1831	107	22	82	**88**	**96**	**44**	**2**	..
33	AES 702	106	20	80	85	**96**	48	**2**	..
34	Ill. 6052	106	22	80	74	**99**	58	3	..
35	Ill. 21	104	20	81	74	95	50	**2**	..
36	Ill. 1570	104	20	80	78	**98**	49	5	..
37	Ill. 1928	104	22	80	**88**	94	54	**1**	..
38	Ill. 6021	104	20	82	81	**96**	58	6	..
39	Iowa 4297	98	20	80	80	94	47	3	..
	Average	112	20	81	89	97	47	2	..
	C — 1959 results (3 replications)								
1	Ill. 3182A	**118**	24	83	69	**97**	46	**3**	**1**
2	Ill. 3022	**116**	22	80	**96**	**93**	**42**	**1**	**6**
3	Ill. 3042	**115**	24	82	**96**	**95**	43	**0**	**4**
4	Ill. 3347	**112**	24	81	**90**	**96**	46	**1**	**1**
5	Ill. 1968	**109**	20	84	**92**	**94**	**42**	**1**	**5**
6	Ill. 3026	**108**	23	80	**90**	**96**	**40**	**1**	**6**
7	Ill. 3321	**108**	21	81	**90**	**96**	44	**1**	8
8	Ill. 3348	**108**	25	79	**89**	**97**	45	**1**	**0**
9	Ill. 3029	**107**	22	81	**98**	92	43	**1**	**2**
10	Ill. 3318	**107**	20	81	**94**	**97**	45	**0**	**6**
11	U.S. 13	**107**	22	80	87	**97**	52	5	**5**
12	Ill. 3021	**106**	22	81	**95**	**98**	**41**	**3**	12
13	Ill. 3326A	**106**	19	82	**94**	**98**	44	**0**	11
14	Ill. 1969	**105**	21	81	**93**	**96**	46	**1**	**1**
15	Ill. 3317	**105**	22	82	**96**	**99**	44	**1**	**4**
16	Ill. 3345	**105**	24	82	**90**	**97**	47	**3**	**1**
17	Ill. 3182B	**104**	24	81	84	**98**	46	**0**	**3**
18	Ill. 3314	**104**	22	83	86	**97**	48	**1**	**3**
19	Ill. 3318A	**104**	20	78	**94**	**94**	46	**3**	**4**
20	Ill. 3326	**104**	22	80	**91**	**95**	43	**0**	**5**
21	Ill. 3319	**103**	21	81	**94**	**95**	47	**0**	**0**
22	Ill. 3323A	**103**	20	79	**95**	**97**	**42**	**0**	**1**
23	AES 703	102	22	80	**94**	**94**	**42**	**1**	**4**
24	Ill. 3015B	102	22	80	**94**	91	**42**	**1**	**6**
25	Ill. 3160	102	21	82	**96**	**95**	44	**0**	**4**
26	Iowa 4962	102	22	78	**91**	**96**	**40**	**1**	**3**
27	Ill. 3023A	101	21	82	**90**	**97**	**39**	**0**	**1**
28	Ill. 3315	101	22	80	**95**	88	48	**2**	**2**
29	Ill. 3291	100	23	83	**97**	**96**	44	**0**	12
30	Ill. 3184A	99	25	82	76	**96**	50	**1**	8
31	Ill. 3322	99	21	81	**92**	**96**	43	**0**	**4**
32	AES 702	98	22	79	**93**	**94**	45	**2**	**1**
33	Ill. 1971	98	21	81	**93**	90	45	**2**	**6**
34	Ill. 3010	98	22	80	**89**	**95**	43	4	**6**
35	Ill. 3294	98	23	80	**91**	**98**	50	5	8
36	Ill. 6109	98	21	77	**92**	**94**	46	**1**	**4**
37	Ill. 3032	97	22	80	86	91	**42**	**1**	**6**
38	Ill. 3039	96	22	77	**94**	**99**	**40**	**2**	**5**
39	Ill. 3045A	96	20	79	**91**	**95**	43	**0**	**4**
40	Ill. 3017	95	21	79	**97**	92	44	**1**	**5**

(Table is concluded on next page)

Table 4. — Concluded

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	C — 1959 results (3 replications) — concluded								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
41	Ill. 3043	95	24	80	**91**	**96**	43	**1**	**1**
42	Ill. 3323	95	21	79	**94**	**99**	44	**0**	**4**
43	Ill. 6115	95	22	80	82	**93**	46	**1**	**4**
44	Ill. 3023B	94	24	81	**92**	**97**	**40**	**2**	**7**
45	Ill. 3183A	94	26	79	87	**95**	47	**3**	**2**
46	Ill. 3315A	94	22	79	**94**	**95**	45	**1**	**1**
47	Ill. 3325A	94	20	80	**90**	**97**	**42**	**0**	**6**
48	Iowa 4991	94	24	81	**98**	**94**	**40**	**0**	**5**
49	Ill. 2249W	93	22	78	**89**	**96**	49	12	14
50	Ill. 3020	93	22	79	**96**	**97**	**38**	**1**	8
51	AES 705	92	22	79	**98**	**95**	43	**1**	**3**
52	Ill. 1332	92	20	79	86	89	48	**0**	**6**
53	Ill. 3011A	92	21	78	**98**	**97**	**41**	**1**	**7**
54	Ill. 3049	92	24	78	**93**	**93**	44	**1**	**1**
55	Ill. 1921	91	24	79	86	**95**	46	**3**	**4**
56	Ill. 3316	91	21	79	**90**	**95**	44	**1**	**1**
57	Ill. 1966	89	22	75	87	**95**	47	**2**	**6**
58	Ill. 3320	89	20	81	**96**	91	44	**1**	**4**
59	AES 805	88	23	79	**94**	**95**	47	4	15
60	Ill. 21	88	21	78	88	**94**	47	**2**	10
61	Ill. 3030	87	22	77	**97**	**94**	**40**	**0**	**3**
62	Ill. 6021	87	21	80	**89**	**93**	54	4	10
63	Iowa 4989	86	24	79	**95**	**95**	45	**0**	**6**
64	AES 704	85	22	76	**98**	**93**	**41**	**1**	**3**
65	Ill. 1570	85	23	80	**89**	**95**	45	4	**4**
66	Ill. 1928	84	25	79	**91**	90	48	**2**	9
67	Ill. 3325	83	20	79	**93**	**98**	**42**	**1**	10
68	Ill. 1831	81	25	80	**91**	**93**	**38**	**2**	12
69	Ill. 6052	81	26	78	76	**98**	53	**3**	13
70	Ill. 1996	79	24	77	**92**	91	46	**2**	**1**
71	Iowa 4297	75	23	79	87	91	45	**2**	14
72	Ill. 3044A	72	21	78	**94**	**95**	**40**	**1**	**4**
	Average	97	22	80	91	95	44	2	5

Table 5. — THREE-WAY CROSSES AND STANDARDS OF ILLINOIS 21 MATURITY

Tested in North-Central Illinois, 1959

(Data in boldface were not statistically different from the best performance for that characteristic. Absence of boldface figures in some columns is due to lack of statistical information.)

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
	A — Inbred lines crossed with (WF9 × B14)								
1	R104	84	22	83	**94**	**95**	**39**	**1**	**0**
2	R135	74	26	85	**91**	**91**	43	4	14
3	R138	**101**	23	82	**90**	**94**	43	**0**	**6**
4	R195	80	18	82	**96**	87	**40**	**2**	**7**
5	H62	**94**	26	81	**93**	**89**	**39**	**2**	**0**
6	Ia57:1302	**94**	22	82	75	**93**	43	**0**	**1**
7	Ia57:1766	69	25	82	**96**	**89**	44	**1**	12
8	Oh26F	**89**	18	84	**95**	**96**	41	4	**3**
	Average	86	23	83	91	92	42	2	5
	B — Inbred lines crossed with (B37 × Oh43)								
9	R104	73	21	86	**93**	**91**	**38**	**1**	**3**
10	R135	**87**	21	84	75	87	45	**3**	10
11	R138	**104**	22	81	**90**	**95**	43	**2**	**6**
12	R195	79	21	82	**96**	**89**	41	**0**	**7**
13	H62	**94**	25	82	**91**	**94**	**39**	**0**	**2**
14	Ia57:1302	**102**	22	80	79	**95**	44	**0**	**5**
15	Oh26F	**94**	21	83	**94**	**93**	**39**	**1**	**3**
	Average	90	22	83	88	92	41	0	5
	C — Standard checks								
19	Ill. 3016	**103**	20	80	**94**	**93**	**37**	**0**	**3**
17	B37×Oh43	**100**	25	79	**99**	**96**	**36**	**0**	**4**
16	WF9×B14	**90**	18	80	**99**	**91**	43	**1**	**2**
18	AES 705	**88**	20	79	**97**	**92**	**39**	**0**	**4**
20	Ill. 3049	**85**	23	81	88	**98**	46	**0**	**1**
21	Ia. 4297	**85**	20	85	**92**	**92**	**40**	**1**	10
	Average	92	21	81	95	94	40	0	4
Average of 21 entries		89	22	82	91	92	41	2	5

Table 6. — DOUBLE CROSSES OF ILLINOIS 1570 MATURITY Tested in Central Illinois, 1957-1959

(Data in boldface were not statistically different from the best performance for that characteristic. Absence of boldface figures in some columns is due to lack of statistical information.)

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	A — Three-year averages, 1957-1959								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
1	A 102	**109**	22	81	78	**98**	42	**1**	**12**
2	Ill. 1976	**109**	21	80	85	**96**	45	**0**	**9**
3	AES 810	**107**	**19**	81	**91**	**96**	42	**1**	**12**
4	Ill. 3117	**106**	**19**	**85**	85	**98**	**41**	**1**	**14**
5	Ill. 3093	**105**	**19**	81	**89**	**98**	42	**2**	**8**
6	Ill. 1918	**104**	20	**83**	**88**	**98**	44	5	**8**
7	Ill. 3080	**103**	20	80	83	**98**	43	**1**	**6**
8	Ill. 1984	**102**	21	79	**86**	**98**	42	**1**	**9**
9	Ill. 3055	**102**	**19**	**82**	**90**	**98**	43	**0**	**10**
10	Ill. 3049	**102**	20	**82**	**97**	**98**	**41**	**0**	**5**
11	Ill. 1332-3	**102**	21	**82**	**88**	**97**	43	**1**	**13**
12	Ill. 1916	**102**	**19**	**83**	**86**	**98**	45	**2**	**16**
13	Ill. 1926	**101**	**19**	80	**94**	**96**	43	**2**	**7**
14	AES 809	**100**	21	**82**	**91**	**95**	**38**	**1**	**13**
15	Ill. 1856	**100**	25	80	**86**	**98**	47	**1**	**13**
16	Ill. 1922	**100**	21	81	**93**	**98**	**41**	**0**	**8**
17	Ill. 1983	**99**	**19**	**82**	**93**	**98**	43	**2**	**7**
18	Ill. 1989	**99**	**19**	80	**92**	**96**	**39**	**1**	**7**
19	Ill. 3107	**99**	20	**82**	**88**	**99**	42	**2**	**13**
20	Ill. 3121	**99**	**19**	**83**	**88**	**97**	**40**	**1**	**5**
21	Ill. 1981	**98**	20	81	**90**	**97**	45	**2**	**16**
22	Ill. 1987	**98**	20	77	**87**	**98**	43	**2**	**8**
23	Ill. 3115	**98**	**17**	**82**	**88**	**98**	43	**2**	18
24	Ill. 3119	**98**	21	**82**	84	**99**	42	**1**	**7**
25	Ill. 1332-4	**98**	**19**	**82**	**89**	**97**	42	**1**	**8**
26	Ill. 1996	**98**	20	77	**92**	**97**	43	**1**	**10**
27	Ill. 1813	**98**	21	81	**96**	**95**	43	**2**	**9**
28	Ill. 1880	**98**	**19**	**83**	**89**	**98**	42	**2**	**7**
29	Ill. 1921	**98**	20	80	**94**	**98**	**41**	**1**	**12**
30	Ill. 3124	**98**	21	80	**95**	**99**	42	**1**	**7**
31	Ill. 3092	**97**	20	81	**91**	**97**	43	**2**	**10**
32	Ill. 3074	**97**	21	**83**	**92**	**99**	42	**0**	**9**
33	AES 702	**97**	20	80	**88**	**99**	**40**	**2**	**12**
34	Ill. 1944	**97**	21	79	**90**	94	47	**0**	**11**
35	Ill. 1994	**97**	21	78	**91**	**97**	**41**	**1**	**11**
36	Ill. 1332	**97**	20	**82**	**93**	**97**	42	**2**	**16**
37	Ill. 3075	**97**	20	**83**	**89**	**99**	43	**1**	**7**
38	U.S. 13	**97**	**19**	80	81	**95**	46	4	**10**
39	Ill. 1928	**97**	21	81	**90**	**96**	45	**1**	**17**
40	Ill. 1919	**96**	**19**	80	85	**98**	42	3	**16**
41	Ill. 3104	**96**	**19**	80	**88**	**98**	**40**	**2**	**13**
42	Ill. 21	**96**	**19**	**82**	**89**	**98**	42	**2**	**10**
43	Ill. 1978	**95**	21	77	83	**98**	45	**2**	**10**
44	Ill. 1893	**95**	20	80	**89**	94	46	**2**	**17**
45	Ill. 1992	**95**	22	78	**92**	**95**	43	**0**	**11**
46	Ill. 3151	**95**	**19**	80	**92**	**97**	43	**1**	**16**
47	Ill. 1570	**95**	20	80	81	**97**	43	**2**	**10**
48	Ill. 1851	**94**	22	77	**88**	**95**	47	**1**	**15**
49	AES 805	**93**	20	79	**92**	**97**	42	**1**	23
50	Ill. 1890	**93**	**19**	81	**89**	94	42	**0**	18
	Average	99	20	81	89	97	43	1	11

(Table is continued on next page)

Table 6. — Continued

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	B — Two-year averages, 1958-1959								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
1	Ill. 3183	**109**	20	**82**	**89**	**96**	**38**	**2**	**10**
2	Ill. 3186	**108**	19	**84**	**86**	**98**	42	**2**	**12**
3	Ill. 1976	**107**	20	**82**	**90**	**98**	42	**0**	**12**
4	A 102	**105**	19	**83**	77	**98**	41	**1**	**17**
5	Ill. 3080	**104**	18	**82**	84	**98**	41	**2**	**8**
6	Ill. 3117	**104**	**17**	**86**	**89**	**98**	40	**2**	**19**
7	AES 810	**102**	18	**82**	**94**	**95**	40	**2**	**17**
8	Ill. 1918	**101**	20	**84**	**91**	**98**	42	7	**12**
9	Ill. 3093	**100**	18	**82**	**88**	**98**	40	**2**	**12**
10	Ill. 1926	**100**	18	**82**	**96**	**97**	40	**2**	**10**
11	Ill. 1984	**100**	18	80	**91**	**98**	40	**2**	**14**
12	Ill. 3055	**100**	18	**82**	**93**	**98**	43	**0**	**16**
13	Ill. 3074	**100**	20	**85**	**93**	**99**	40	**0**	**13**
14	Ill. 1916	**99**	**17**	**85**	**88**	**98**	44	4	**20**
15	Ill. 1989	**99**	18	**82**	**93**	**98**	**38**	**1**	**10**
16	Iowa 5115	**98**	19	80	**92**	**98**	40	**0**	**6**
17	AES 809	**98**	20	**84**	**90**	**97**	**34**	**1**	**19**
18	Ill. 1987	**98**	19	78	**89**	**100**	42	**3**	**12**
19	Ill. 1922	**97**	20	**84**	**94**	**98**	**38**	**0**	**11**
20	Ill. 3151	**96**	18	**83**	**95**	**98**	42	**2**	**24**
21	Ill. 3049	**96**	20	**83**	**98**	**100**	**38**	**0**	**8**
22	Ill. 3119	**96**	18	**84**	84	**98**	42	**2**	**10**
23	Ill. 3121	**96**	18	**84**	84	**96**	**38**	**1**	**6**
24	Ill. 1856	**96**	21	81	**92**	**98**	44	**2**	**19**
25	Ill. 3075	**95**	18	**84**	**88**	**98**	40	**1**	**10**
26	U.S. 13	**95**	19	**82**	84	**97**	44	6	**14**
27	AES 705	**94**	18	**84**	**94**	**98**	**36**	**1**	**16**
28	Ill. 1992	**94**	20	81	**92**	**95**	40	**0**	**16**
29	Ill. 1996	**94**	18	78	**94**	**97**	40	**1**	**14**
30	Ill. 1983	**94**	18	**82**	**95**	**98**	41	**2**	**10**
31	Ill. 1570	**94**	18	**82**	**92**	**96**	42	**3**	**14**
32	Ill. 1994	**94**	19	80	**90**	**98**	40	**2**	**16**
33	Ill. 1332-3	**93**	20	**84**	**90**	**96**	40	**2**	**19**
34	Ill. 1332-4	**93**	18	**84**	**94**	**95**	40	**2**	**12**
35	Ill. 1813	**93**	20	**82**	**96**	**94**	42	**2**	**14**
36	Ill. 21	**93**	18	**82**	**94**	**98**	43	4	**15**
37	Ill. 3107	**93**	19	**84**	**91**	**100**	41	**3**	**19**
38	Ill. 1944	**92**	20	**82**	**88**	92	46	**0**	**15**
39	Ill. 1919	**92**	18	81	**90**	**97**	40	5	**24**
40	Ill. 3115	**92**	**16**	**84**	**93**	**98**	42	**2**	25
41	Ill. 3124	**91**	20	**82**	**96**	**100**	40	**2**	**10**
42	Ill. 1880	**90**	18	**84**	**93**	**98**	41	**2**	**10**
43	Ill. 1981	**90**	18	**83**	**92**	**97**	43	**2**	**22**
44	Ill. 1332	**90**	18	**84**	**97**	**99**	42	**2**	**24**
45	Ill. 1893	**90**	18	**82**	**92**	**96**	43	4	25
46	Ill. 1921	**90**	19	80	**98**	**98**	39	**2**	**18**
47	AES 702	**89**	18	**82**	**91**	**99**	**37**	**2**	**18**
48	Ill. 3104	88	18	80	**93**	**98**	**38**	**3**	**19**
49	Ill. 1928	87	20	**82**	**92**	**96**	41	**2**	**24**
50	Ill. 3092	87	18	**82**	**91**	**96**	40	**3**	**14**
51	Ill. 1851	86	20	78	**86**	94	46	**1**	**22**
52	Ill. 1978	86	20	79	**86**	**98**	45	**2**	**15**
53	Ill. 6021	86	19	80	**86**	**98**	49	5	**24**
54	Ill. 6052	83	19	**84**	78	92	48	**3**	**22**
55	AES 805	83	19	80	**93**	**98**	40	**1**	34
56	Ill. 1890	83	19	80	**92**	92	41	**0**	26
	Average	95	19	82	91	97	41	2	16

(Table is continued on next page)

Table 6. — Continued

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	C — 1959 results (3 replications)								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
1	Ill. 3343	**106**	20	83	**92**	**100**	37	**1**	**6**
2	Ill. 3346	**106**	21	85	86	**99**	39	**1**	**9**
3	Ill. 3347	**104**	18	84	**92**	95	**33**	**1**	**9**
4	Ill. 3350	**103**	22	80	87	**99**	37	**1**	**6**
5	Ill. 3332A	**100**	19	85	84	**98**	35	**0**	**8**
6	Ill. 3244	**99**	19	84	84	**98**	34	**1**	**16**
7	Ill. 3349	**99**	20	79	81	97	38	**1**	**11**
8	A104	**99**	19	80	74	96	36	**1**	**11**
9	Ill. 3334	**98**	19	85	79	**98**	35	**1**	**6**
10	Ill. 3353	**98**	21	82	89	95	34	**1**	**6**
11	Ill. 3357	**98**	21	82	**91**	97	**30**	**0**	**8**
12	Ill. 3329	**96**	18	83	**90**	**100**	34	**1**	**5**
13	Ill. 3377	**96**	18	84	**92**	**99**	36	3	19
14	Ill. 1976	**95**	19	81	**92**	**98**	36	**0**	21
15	A110	**95**	20	84	74	92	36	**1**	**5**
16	Ill. 3354	**93**	23	78	76	**99**	37	**2**	**8**
17	Ill. 1918	**92**	20	83	**92**	95	35	12	21
18	Ill. 3248	**92**	19	82	79	**99**	**33**	3	**12**
19	Ill. 3344	**92**	24	83	**94**	97	37	**1**	**7**
20	Ill. 3359	**92**	20	80	84	97	**33**	**2**	**12**
21	Ill. 3378	**92**	19	86	84	**99**	36	**2**	**17**
22	Ill. 3277	**91**	19	81	84	97	35	**0**	**14**
23	Ill. 3348	**90**	21	84	**92**	**99**	36	**0**	**6**
24	Ill. 3328	**89**	19	83	85	**98**	34	**1**	**7**
25	Ill. 3330	**89**	19	84	89	**98**	36	**1**	**8**
26	Ill. 3351	**89**	20	85	88	**100**	39	**1**	**6**
27	Ill. 3372	**89**	20	83	87	**99**	36	3	18
28	Ill. 3080	**88**	18	82	78	**99**	36	**1**	**15**
29	Ill. 3183	**88**	21	79	84	94	**32**	**1**	**15**
30	Ill. 3186	**88**	19	84	84	96	36	3	21
31	AES 810	**87**	18	80	**92**	**99**	**33**	3	27
32	Ill. 3332	**87**	19	82	73	95	34	**2**	**5**
33	Ill. 3374	**87**	18	80	**96**	94	35	4	**16**
34	Ill. 1926	**86**	19	80	**95**	97	34	3	**17**
35	Ill. 3117	**86**	17	85	89	**99**	34	**2**	28
36	Ill. 3240A	**85**	22	82	**93**	97	35	3	32
37	Ill. 3247	**85**	19	82	73	97	37	**1**	**14**
38	Ill. 3259B	**85**	18	81	78	**98**	**31**	**0**	**15**
39	Ill. 3333	**85**	19	84	80	95	34	3	**9**
40	A102	**85**	19	82	75	**99**	**33**	**1**	22
41	Ill. 3183A	**84**	21	81	89	96	36	3	20
42	Ill. 3281	**84**	18	82	89	**98**	37	**2**	24
43	Ill. 3184A	83	20	83	77	**99**	36	5	26
44	Ill. 3362	83	21	83	88	97	35	**1**	**15**
45	Ill. 3373	83	18	82	**91**	**99**	**32**	5	19
46	Ill. 3055	82	18	81	**96**	**99**	39	**0**	26
47	Ill. 3238	82	20	83	**91**	**99**	34	**1**	25
48	Ill. 3074	81	20	84	89	**98**	34	**1**	**17**
49	Ill. 3237A	81	18	84	84	**98**	34	**1**	**16**
50	Ill. 3242	81	20	82	88	95	34	**0**	**15**
51	Ill. 3093	80	17	83	86	97	34	**2**	25
52	Ill. 3222	80	18	83	**90**	**99**	34	**2**	**10**
53	Ill. 3236	80	23	85	82	93	36	**0**	19
54	Ill. 3345	80	22	80	**90**	**98**	37	**2**	**6**
55	Ill. 3355	80	20	81	**95**	96	**31**	**1**	**10**
56	A109	80	19	81	87	96	36	3	25
57	Ill. 3237	79	19	81	86	**100**	**30**	**2**	**11**
58	Ill. 3249	79	20	83	82	97	**33**	5	**16**
59	Ill. 3367	79	20	81	**91**	**99**	**33**	**0**	**13**
60	U.S. 13	79	19	81	88	**99**	39	8	27
61	Ill. 1989	78	18	82	**92**	**98**	**33**	**0**	18
62	Ill. 3182A	78	22	83	81	**99**	34	**1**	19
63	Ill. 3342	78	17	84	82	**99**	34	**2**	**14**
64	Ill. 3358	78	19	83	87	88	**32**	**1**	**13**
65	Ill. 3360	78	20	81	86	**99**	34	**1**	**16**

(Table is continued on next page)

Table 6. — Continued

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	C — 1959 results (3 replications) — continued								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
66	Ill. 3384	78	20	83	**93**	94	**33**	**1**	22
67	Ill. 3121	77	18	84	72	**98**	**32**	**2**	**10**
68	Ill. 3239	77	19	83	85	**99**	34	**0**	**17**
69	Ill. 3356	77	20	80	82	95	**33**	**2**	**10**
70	Ill. 3259A	76	20	83	82	**99**	34	**1**	**13**
71	Ill. 3331	76	19	84	89	95	36	5	20
72	Iowa 5018	76	19	80	**91**	**98**	**32**	3	21
73	AES 809	75	20	82	89	97	**31**	**1**	34
74	Ill. 1916	75	18	84	89	97	37	6	33
75	Ill. 1987	75	18	74	89	**99**	36	**2**	21
76	Ill. 3102	75	18	80	**95**	92	34	**1**	32
77	Ill. 3254	75	19	80	**93**	97	**30**	**0**	**9**
78	Ill. 3280	75	19	79	**95**	96	34	**1**	28
79	Ill. 3368	75	18	83	**95**	**99**	37	3	18
80	Ill. 1570	74	18	81	**95**	**99**	37	5	23
81	Ill. 1922	74	20	84	**92**	**99**	35	**1**	18
82	Ill. 1984	74	18	80	**91**	97	35	**1**	26
83	Ill. 3124	74	20	82	**94**	**100**	36	3	18
84	Ill. 3256	74	19	84	**90**	97	34	**1**	19
85	Ill. 3259	74	20	82	86	**98**	**30**	**1**	**12**
86	Ill. 3119	73	18	83	74	97	35	3	**12**
87	Ill. 3232	73	17	81	**94**	**98**	34	3	20
88	Ill. 3361	73	19	81	87	95	35	**2**	**14**
89	Ill. 1856	72	22	79	**94**	97	34	**2**	28
90	Ill. 3253	72	22	83	81	**99**	**30**	**1**	**8**
91	Ill. 3371	72	18	81	**96**	95	39	**1**	26
92	Ill. 3375	72	20	85	**90**	**100**	39	**2**	26
93	U.S. 523W	72	24	78	77	**98**	38	**2**	23
94	Ill. 1944	71	19	82	81	89	40	**1**	**15**
95	Ill. 1994	71	19	79	**90**	**98**	**33**	**2**	29
96	Ill. 1996	71	18	72	**93**	**99**	34	**1**	28
97	Ill. 3220	71	20	82	**95**	**98**	35	**1**	25
98	Ill. 3276	71	21	74	**94**	**98**	36	**1**	**15**
99	Ill. 3279	71	21	82	**98**	**99**	34	5	36
100	Ill. 3370	71	19	79	**97**	96	34	6	26
101	Iowa 5115	71	19	77	**93**	97	34	**1**	**11**
102	Ill. 21	70	18	82	**98**	96	37	4	25
103	Ill. 1880	70	18	84	**95**	97	35	**2**	**16**
104	Ill. 1983	70	17	80	**98**	97	35	3	19
105	Ill. 3049	70	20	83	**98**	**99**	35	**1**	**12**
106	Ill. 3182B	70	20	81	89	95	34	**2**	18
107	Ill. 3221	70	20	84	89	97	36	**0**	36
108	Ill. 1332-4	69	17	84	**94**	95	**33**	**2**	**16**
109	Ill. 3278	69	19	79	89	97	36	4	24
110	Iowa 5040	69	19	80	**92**	**99**	35	**1**	19
111	Ill. 3011A	68	17	80	**94**	**99**	**32**	**1**	34
112	Ill. 3075	68	19	82	84	**98**	34	**0**	**14**
113	Ill. 3225	68	21	83	**96**	97	35	**2**	28
114	Ill. 3246	68	22	68	76	96	37	**2**	20
115	Ill. 1851	67	20	77	**96**	**99**	37	**1**	40
116	Ill. 1992	67	19	80	**95**	96	34	**1**	31
117	Ill. 3092	67	17	83	**93**	**98**	35	**2**	24
118	Ill. 3151	67	18	81	**97**	**98**	35	**1**	41
119	Ill. 3227	67	18	80	**95**	**98**	36	3	22
120	Ill. 3364	67	22	81	**91**	95	37	**0**	**17**
121	AES 702	66	17	82	86	**99**	**33**	3	35
122	Ill. 1332-3	66	19	85	**92**	**99**	35	3	34
123	Ill. 3255	66	19	81	88	**99**	**33**	**1**	**11**
124	Ill. 3257	66	19	82	**91**	97	**32**	**0**	19
125	AES 705	65	18	82	**96**	97	**31**	**0**	26
126	Ill. 3260	65	18	79	81	97	**33**	**1**	32
127	Ill. 3369	65	18	80	**94**	**98**	34	**2**	29
128	Ill. 1813	64	20	81	**95**	**99**	37	3	28
129	Ill. 1893	64	19	80	**93**	97	35	3	44
130	Ill. 3235	64	17	80	**98**	97	36	8	32

(Table is concluded on next page)

Table 6. — Concluded

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	C — 1959 results (3 replications) — concluded								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
131	Ill. 3241	64	21	82	83	**98**	39	3	27
132	Ill. 3284	64	19	83	**95**	94	35	**2**	26
133	Ill. 3376	64	19	80	**95**	**99**	36	**2**	22
134	Ill. 3365	63	18	81	**95**	97	35	3	26
135	Ill. 1928	62	22	80	**94**	95	35	**1**	44
136	Ill. 1981	62	19	82	**98**	97	36	3	40
137	Ill. 3115	62	17	81	**93**	97	34	3	44
138	Ill. 3230	62	19	82	**96**	**100**	**32**	3	38
139	Ill. 3240	62	21	82	**91**	**98**	34	**1**	37
140	Ill. 3260A	62	18	81	79	**100**	**33**	**0**	35
141	Ill. 6021	62	20	77	**91**	**98**	42	5	47
142	Ill. 3218	61	19	82	**98**	**98**	**32**	3	22
143	Ill. 3258	61	18	82	89	91	**30**	**0**	20
144	Ill. 3264	61	17	81	83	96	34	**1**	24
145	Ill. 1919	60	19	77	**93**	**99**	**33**	5	36
146	Ill. 3226	60	18	81	**98**	97	35	**1**	32
147	Ill. 3283	60	18	79	**92**	**99**	34	**0**	35
148	Ill. 6109	60	18	80	**90**	96	**33**	**2**	40
149	Ill. 6115	60	18	79	**96**	**98**	36	3	38
150	Ill. 1332	59	18	81	**100**	**100**	35	4	44
151	Ill. 3107	59	19	82	**97**	**99**	34	4	29
152	Ill. 3223	59	21	82	**99**	97	**33**	**0**	24
153	Ill. 3224	59	19	81	**100**	97	36	4	37
154	Ill. 3285	59	18	79	**92**	**98**	34	**1**	44
155	Ill. 3233	58	18	80	**99**	**98**	**33**	10	33
156	Ill. 3234	58	19	80	**95**	97	38	7	29
157	Ill. 3282	58	19	76	**96**	95	**33**	**1**	43
158	Ill. 6052	57	20	84	82	93	37	3	42
159	Ill. 3229	56	19	81	**100**	**99**	**32**	**2**	30
160	Ill. 1890	55	19	78	**92**	93	36	**0**	46
161	Ill. 1921	54	20	78	**98**	**98**	**32**	4	29
162	Ill. 1978	54	20	75	**98**	97	35	4	30
163	Ill. 3219	54	19	82	**98**	**99**	**33**	**1**	33
164	Ill. 3228	53	18	83	**97**	97	**31**	3	39
165	Ill. 6062	51	18	79	**94**	97	35	4	49
166	Ill. 3217	50	19	81	**99**	**100**	35	**2**	23
167	AES 805	49	18	76	**97**	**99**	**33**	**2**	58
168	Ill. 3104	49	18	75	**99**	**98**	**33**	4	35
169	Ill. 3363	49	19	79	**99**	**98**	**33**	**1**	35
170	Ill. 3366	45	18	72	**98**	95	35	4	35
171	Iowa 5122	40	18	78	**100**	**99**	**32**	3	47
172	Ill. 3231	38	18	79	**93**	96	**30**	4	46
	Average	74	19	81	90	97	35	2	23

Table 7. — THREE-WAY CROSSES AND STANDARDS OF ILLINOIS 1570 MATURITY

Tested in Central Illinois, 1959

(Data in boldface were not statistically different from the best performance for that characteristic. Absence of boldface figures in some columns is due to lack of statistical information.)

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
A — Inbred lines crossed with (Hy × WF9)									
1	R74A	58	21	74	**97**	**94**	34	**1**	6
2	R76	83	19	81	**93**	**96**	37	9	15
3	R78	65	21	80	74	**93**	**28**	**3**	8
4	R84	58	19	79	**93**	**98**	36	**1**	**5**
5	R196	40	20	78	**88**	**98**	36	**1**	**2**
6	H51	85	21	78	**91**	**98**	36	**2**	**5**
7	38-11	76	21	80	**95**	**100**	52	7	19
8	L317	76	21	82	57	**94**	40	**4**	**5**
9	Ia47:1313	57	19	77	**92**	**98**	36	**1**	**4**
10	Ia57:1357	83	22	79	**93**	**99**	36	**2**	**0**
11	K807	64	19	78	**98**	**95**	**33**	**0**	**2**
12	K808	73	21	78	83	**99**	36	**0**	**2**
13	Mo4582	**111**	22	80	**89**	**97**	40	22	**2**
14	Mo61004	84	23	75	**87**	**93**	34	**0**	**3**
15	Mo61018	61	24	73	**96**	**96**	35	**1**	**3**
16	CI.38B	79	20	75	**97**	**99**	38	**2**	7
	Average	72	21	78	89	97	36	4	6
B — Inbred lines crossed with (B14 × CI.31A)									
17	Hy	**103**	22	83	80	**93**	41	**0**	**1**
18	R74A	53	22	77	**100**	**94**	**32**	**0**	**4**
19	R76	83	20	80	71	**96**	42	**4**	6
20	R78	83	20	80	74	**96**	34	**3**	**2**
21	R84	84	19	78	68	**95**	38	**0**	6
22	R196	**95**	22	81	**89**	**98**	36	**0**	**0**
23	WF9	79	20	81	**92**	**96**	**32**	**0**	8
24	H49	72	22	79	**88**	**100**	36	**1**	**1**
25	H51	74	20	78	79	**97**	**32**	**0**	**2**
26	H52	70	21	74	**98**	**98**	42	**2**	**4**
27	H55	**94**	22	82	64	**99**	40	**0**	**4**
28	H56	**111**	24	82	79	**99**	40	**0**	**0**
29	38-11	**93**	19	79	**95**	**100**	40	**4**	6
30	B41	54	21	77	**95**	**97**	36	**0**	**2**
31	L317	68	21	78	58	**97**	40	**0**	**3**
32	Ia57:1313	84	21	80	79	**98**	38	**0**	**0**
33	Ia57:1357	74	24	78	**92**	**95**	**33**	**0**	**2**
34	K807	72	20	75	**97**	**99**	36	**0**	**2**
35	K808	61	24	77	**88**	**97**	34	**0**	9
36	Mo4582	**95**	20	79	72	**96**	40	**2**	**0**
37	Mo9120	**108**	21	83	**93**	**99**	34	**0**	**1**
38	Mo9170	79	22	80	**95**	**98**	36	**0**	**2**
39	Mo53683	**87**	21	79	84	**99**	36	**2**	**3**
40	Mo61004	**90**	24	75	**85**	**95**	36	**0**	**1**
41	Mo61018	59	24	76	**97**	**94**	**30**	**0**	**0**
42	Mo61259	**92**	24	76	**94**	**96**	40	**0**	**2**
43	CI.29A	84	22	78	**94**	**99**	36	**3**	**3**
44	CI.38B	81	21	79	**95**	**98**	**33**	**0**	**3**
45	CI.42A	**102**	25	81	56	**98**	39	**0**	**5**
	Average	82	22	79	85	97	37	1	3
C — Standard checks									
47	B14×CI.31A	**108**	22	82	**88**	90	36	**0**	**3**
48	Ill. 1332	77	19	81	**94**	**99**	38	**0**	18
49	U.S. 13	72	20	78	80	**97**	44	**1**	12
46	Hy×WF9	63	23	79	**99**	**99**	**30**	**1**	10
	Average	80	21	80	90	96	37	1	11
Average of 49 entries		79	21	79	86	97	36	2	5

Table 8. — THREE-WAY CROSSES AND STANDARDS Tested in Central Illinois, 1959

(Data in boldface were not statistically different from the best performance for that characteristic)

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Height		Dropped ears	Smut
							Plant	Ear		
	A — Inbred lines crossed with (WF9 × Oh43)									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*in.*	*perct.*	*perct.*
1	R71	**91**	**20**	80	**90**	**100**	**67**	**31**	**1**	**4**
2	R74	65	22	77	**92**	**99**	**66**	**29**	**0**	**1**
3	R74A	46	21	72	**96**	92	**69**	**29**	**1**	**7**
4	R76	**86**	22	78	79	89	77	38	4	**7**
5	R78	77	23	**81**	68	**95**	70	**33**	4	**5**
6	R84	67	21	80	**89**	**98**	**68**	**33**	**2**	**5**
7	R101	81	21	79	**81**	**99**	70	**32**	**1**	9
8	R104	81	21	**82**	**88**	**100**	70	34	**0**	11
9	R109B	79	23	79	**94**	88	**69**	**31**	**1**	**1**
10	R112	**88**	**20**	**82**	76	**95**	**67**	**27**	**2**	**7**
11	R113	68	21	74	**84**	**97**	**67**	**31**	**0**	**5**
12	R114	56	**19**	80	**95**	**95**	74	**32**	**0**	11
13	R132	80	21	79	67	**100**	**69**	**33**	**1**	**5**
14	R134	**88**	21	78	**92**	**94**	79	36	**1**	**2**
15	R135	76	21	**83**	74	**96**	**67**	**31**	9	14
16	R151	**101**	22	**82**	**90**	**99**	74	**32**	**1**	**5**
17	R154	**95**	21	**82**	62	**98**	71	**31**	**0**	**5**
18	R158	77	**19**	**83**	**92**	**100**	75	**33**	5	**2**
19	R159	56	22	76	**98**	**98**	**62**	**26**	**0**	**2**
20	R166	78	22	**81**	54	**97**	**59**	**28**	**0**	**4**
21	R168	**89**	**19**	**84**	**85**	**99**	**68**	**28**	**3**	**5**
22	R172	**94**	21	**82**	**89**	**100**	72	36	**0**	**4**
23	R180	69	22	76	80	**97**	**66**	**27**	5	**6**
24	R181	**96**	**19**	78	78	**98**	72	**32**	**1**	**3**
25	R182	62	**20**	79	**94**	**97**	70	**33**	**3**	**2**
26	R183	45	21	77	**96**	**100**	76	**33**	**0**	8
27	R192	**86**	23	79	**85**	**99**	71	**28**	**0**	**4**
28	R193	77	**20**	79	74	**98**	71	**29**	**0**	**3**
29	R194	78	23	79	77	**99**	70	**33**	**0**	**3**
30	R195	68	**19**	78	**92**	**98**	71	**32**	**0**	**6**
31	R196	75	21	79	**92**	**98**	72	35	4	**4**
32	R197	**96**	23	80	**85**	**93**	73	35	**1**	**2**
33	R198	**95**	24	80	79	**97**	74	**32**	**1**	16
	Average	78	21	79	84	97	70	32	2	6
	B — Single crosses									
34	WF9×Oh43	**97**	**19**	**81**	**92**	**97**	72	**29**	**0**	**3**
35	WF9×B37	76	23	75	**90**	**100**	74	35	**0**	9
36	B41×Oh7A	53	27	70	70	**98**	72	38	**1**	**2**
	Average	75	23	75	84	98	73	34	0	5
	C — Inbred lines crossed with (WF9 × B37)									
1	R71	**95**	24	78	**90**	**95**	72	**26**	**2**	**5**
2	R74	**88**	24	76	**94**	**98**	72	**27**	**0**	**4**
3	R74A	34	23	68	**90**	**97**	73	**28**	**0**	**9**
4	R76	70	22	78	**92**	**93**	77	32	**1**	22
5	R78	69	23	78	73	**100**	**69**	**27**	**0**	**11**
6	R84	42	22	72	**93**	**100**	71	33	**0**	17
7	R101	**89**	23	**80**	**95**	**97**	**68**	**28**	**0**	**9**
8	R104	**74**	22	**81**	75	**97**	72	**30**	**1**	**5**
9	R109B	58	24	75	**90**	92	72	**30**	**0**	**10**
10	R112	**76**	22	**79**	**86**	**93**	70	**27**	**1**	14
11	R113	61	**21**	72	**93**	**98**	**66**	**29**	**0**	14
12	R114	61	**21**	74	**89**	**98**	76	32	**0**	**6**
13	R132	**91**	22	**79**	58	**98**	**67**	**29**	**2**	**9**
14	R134	**81**	23	76	**99**	**93**	76	33	**1**	**4**
15	R135	63	23	**79**	79	89	73	34	**1**	28

(Table is continued on next page)

Table 8. — Continued

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Height		Dropped ears	Smut
							Plant	Ear		
	C — Inbred lines crossed with (WF9 × B37) — concluded									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*in.*	*perct.*	*perct.*
16	R151	**97**	23	**79**	**87**	**98**	78	34	**0**	**5**
17	R154	**91**	22	**81**	75	**96**	76	**30**	**2**	**8**
18	R158	64	**20**	75	**97**	**97**	81	33	**3**	**8**
19	R159	51	23	72	**97**	**97**	71	**27**	**0**	**12**
20	R166	**87**	23	**80**	**86**	**97**	**63**	**28**	**0**	**2**
21	R168	**80**	**21**	**81**	**98**	**96**	**67**	**25**	**0**	**12**
22	R172	**76**	23	77	**98**	**99**	70	**31**	**0**	**7**
23	R180	69	**21**	78	**93**	**99**	**65**	**26**	5	15
24	R181	**93**	**20**	77	**97**	**97**	73	**30**	**1**	**4**
25	R182	53	**20**	74	**96**	**99**	73	**26**	**0**	**4**
26	R183	40	24	74	**98**	**95**	74	35	**0**	**7**
27	R192	**82**	23	76	**95**	**99**	73	**30**	**1**	**12**
28	R193	63	**21**	75	**82**	**97**	71	**25**	**1**	**6**
29	R194	**76**	26	77	**92**	**99**	**69**	32	**1**	**4**
30	R195	68	**20**	75	**91**	**94**	72	32	**0**	**5**
31	R196	69	23	76	**84**	**99**	76	33	**0**	**7**
32	R197	**87**	24	77	78	**94**	76	34	**3**	**2**
33	R198	66	24	75	**87**	**93**	77	35	**1**	22
	Average	72	22	76	89	96	72	30	1	10
	D — Single crosses									
34	WF9×Oh43	**98**	**20**	**80**	**91**	**95**	70	**24**	**1**	**0**
35	WF9×B37	60	22	72	**95**	**94**	71	**30**	**0**	13
36	B41×Oh7A	53	26	70	61	**100**	72	38	**1**	**10**
	Average	70	23	74	82	96	71	31	1	8
	E — Inbred lines crossed with (B41 × Oh7A)									
1	R71	**104**	26	**80**	**90**	**99**	74	38	**2**	**1**
2	R74	**90**	25	78	**88**	**100**	72	**34**	**0**	**5**
3	R74A	15	26	68	**99**	**100**	**63**	**30**	**0**	**12**
4	R76	75	25	76	80	**100**	79	46	**0**	17
5	R78	67	25	**81**	60	**98**	71	**36**	**0**	18
6	R84	42	**22**	75	**95**	**98**	70	38	**1**	**10**
7	R101	52	24	**80**	**97**	**100**	70	**32**	**1**	15
8	R104	**86**	**22**	**83**	**86**	89	**68**	**31**	**0**	**12**
9	R109B	49	27	74	**92**	**97**	74	39	**0**	**6**
10	R112	66	23	**80**	**88**	**99**	70	**32**	**1**	14
11	R113	41	25	73	**97**	**100**	**59**	37	**0**	17
12	R114	54	**22**	76	**86**	**96**	76	**36**	**0**	**12**
13	R132	62	24	78	61	**97**	71	**36**	**0**	**7**
14	R134	71	26	77	**91**	**98**	74	37	**1**	**6**
15	R135	30	23	**81**	**89**	**99**	**69**	38	**2**	14
16	R151	**92**	25	**80**	**90**	**98**	78	37	**0**	**13**
17	R154	**93**	23	**82**	46	**100**	74	37	**0**	**2**
18	R158	54	23	**79**	**98**	**98**	81	40	6	**4**
19	R159	40	25	73	**97**	**100**	70	**36**	**0**	**4**
20	R166	**79**	24	**81**	48	**99**	70	**35**	**0**	**6**
21	R168	**79**	**21**	**83**	**96**	84	71	37	**0**	18
22	R172	73	23	**80**	**91**	**95**	73	37	**1**	**9**
23	R180	66	24	77	**88**	**98**	**65**	**32**	**2**	**3**
24	R181	**86**	**22**	78	71	**97**	75	37	**0**	**7**
25	R182	59	23	77	**99**	**99**	71	**35**	**1**	**3**
26	R183	36	25	78	**94**	**97**	73	37	**0**	**5**
27	R192	69	26	75	72	**100**	75	39	**0**	**10**
28	R193	67	23	77	**86**	**99**	74	**33**	**2**	**5**
29	R194	49	26	75	**89**	**98**	72	37	**2**	**5**
30	R195	58	**22**	77	**91**	**98**	72	41	**0**	**11**
31	R196	70	24	74	**88**	**97**	74	37	**0**	**4**
32	R197	61	26	77	**89**	**91**	71	37	3	**4**
33	R198	56	25	78	**87**	**99**	79	48	**1**	21
	Average	64	24	78	85	97	72	37	1	9

(Table is concluded on next page)

Table 8. — Concluded

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Height		Dropped ears	Smut
							Plant	Ear		
	F — Single crosses									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*in.*	*perct.*	*perct.*
34	WF9×Oh43	72	**22**	77	77	**94**	70	**31**	**0**	**9**
35	WF9×B37	75	**21**	78	81	**96**	70	**32**	**0**	**5**
36	B41×Oh7A	46	27	72	84	**100**	71	38	**0**	**6**
	Average	64	23	76	81	97	70	34	0	6
	G — Mean of inbred lines crossed with three testers									
1	R71	**97**	23	79	**90**	**98**	71	**32**	2	**3**
2	R74	81	24	77	**91**	**99**	70	**30**	**0**	**3**
3	R74A	31	24	69	**95**	**96**	**68**	**29**	**0**	9
4	R76	77	23	77	84	94	78	39	2	15
5	R78	71	23	80	67	**98**	70	**32**	**1**	11
6	R84	51	22	75	**92**	**99**	70	35	**1**	11
7	R101	74	22	80	**91**	**99**	69	**31**	**1**	11
8	R104	80	22	**82**	83	**95**	70	**32**	**0**	9
9	R109B	62	25	76	**92**	92	72	34	**0**	**6**
10	R112	77	22	80	83	**96**	69	**29**	**1**	12
11	R113	57	22	73	**91**	**98**	**64**	**32**	**0**	12
12	R114	57	21	76	**90**	**96**	75	33	**0**	10
13	R132	78	22	79	62	**98**	69	33	**1**	**7**
14	R134	80	23	77	**94**	**95**	77	36	**1**	**4**
15	R135	57	23	81	80	**95**	70	34	4	19
16	R151	**97**	23	80	**89**	**98**	77	35	**0**	**8**
17	R154	**93**	22	**82**	61	**98**	74	33	**1**	**5**
18	R158	65	21	79	**96**	**98**	79	36	5	**5**
19	R159	49	23	74	**97**	**98**	**68**	**30**	**0**	**6**
20	R166	81	23	81	63	**98**	**64**	**31**	**0**	**4**
21	R168	83	**20**	**83**	**93**	93	69	**30**	**1**	11
22	R172	81	22	80	**93**	**98**	72	35	**0**	**7**
23	R180	68	22	77	87	**98**	**66**	**29**	4	**8**
24	R181	**92**	**20**	78	82	**97**	74	33	**1**	**5**
25	R182	58	21	77	**96**	**98**	72	**31**	**1**	**3**
26	R183	40	23	76	**96**	**97**	74	35	**0**	**7**
27	R192	79	24	77	84	**99**	73	**32**	**0**	9
28	R193	69	22	77	81	**98**	72	**29**	**1**	**5**
29	R194	68	25	77	86	**99**	71	34	**1**	**4**
30	R195	65	**20**	76	**91**	**97**	72	35	**0**	**7**
31	R196	72	22	76	**88**	**98**	74	35	**1**	**5**
32	R197	81	24	78	84	93	73	36	2	**3**
33	R198	72	24	78	84	**96**	77	38	**1**	20
	Average	71	23	78	86	97	72	33	1	8
	H — Mean of three single-cross testers									
34	WF9×Oh43	89	**20**	79	87	**95**	71	**28**	**0**	**4**
35	WF9×B37	70	22	75	**89**	**97**	72	**32**	**0**	9
36	B41×Oh7A	51	27	71	72	**99**	72	38	**1**	**6**
	Average	70	23	75	83	97	72	33	0	6

Table 9. — HYBRIDS INVOLVING RELATED INBREDS OF ILLINOIS 1570 MATURITY

Tested in Central Illinois, 1959

(Data in boldface were not statistically different from the best performance for that characteristic. Absence of boldface figures in some columns is due to lack of statistical information.)

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	A — Hybrids involving related inbreds								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
1	Hy2×WF9	60	19	77	**94**	**98**	29	**0**	**6**
2	(Hy2×R138)(WF9×R75)	73	20	81	**97**	**96**	36	4	21
3	(Hy2×R158)(WF9×R75)	73	20	80	**94**	93	39	**2**	16
4	Hy2×38-11	85	20	80	**98**	**98**	42	8	**5**
5	(Hy2×R138)(38-11×R76)	80	19	81	81	**100**	46	**3**	17
6	(Hy2×R158)(38-11×R76)	91	19	81	**89**	**94**	45	10	10
7	(Hy2×R138)(38-11×CI.38B)	84	19	80	**93**	**97**	41	5	9
8	(Hy2×R158)(38-11×CI.38B)	67	20	80	**93**	**97**	37	**2**	11
9	Hy2×Oh7	**116**	20	84	76	93	39	**0**	**0**
10	(Hy2×R138)(Oh7×Oh7A)	**112**	22	83	67	**99**	40	**1**	**6**
11	(Hy2×R158)(Oh7×Oh7A)	106	22	80	**86**	89	41	**0**	**1**
12	(Hy2×R138)(Oh7×Oh7B)	**124**	20	85	**84**	**99**	40	**0**	**6**
13	(Hy2×R158)(Oh7×Oh7B)	104	21	84	**89**	89	39	**1**	**2**
14	Hy2×Oh41	84	21	81	**96**	**94**	37	**2**	**1**
15	(Hy2×R138)(Oh41×R118)	63	21	78	**85**	**98**	42	**0**	**4**
16	(Hy2×R158)(Oh41×R118)	61	20	73	**91**	**97**	41	**1**	**6**
17	(Hy2×R138)(Oh41×CI.317B)	85	22	78	73	**97**	45	**1**	**3**
18	(Hy2×R158)(Oh41×CI.317B)	86	24	79	68	**98**	43	**1**	**1**
19	Hy2×187-2	60	19	82	**96**	**96**	36	**1**	12
20	(Hy2×R138)(187-2×W187R)	52	21	78	**87**	**98**	39	**1**	**7**
21	(Hy2×R158)(187-2×W187R)	55	20	79	**90**	**99**	38	4	**3**
22	(Hy2×R138)(187-2×R84)	56	20	83	**85**	**96**	41	**2**	**5**
23	(Hy2×R158)(187-2×R84)	49	19	78	**93**	**96**	38	**3**	**7**
24	WF9×38-11	83	18	81	**94**	**100**	37	**3**	**7**
25	(WF9×R75)(38-11×R76)	74	19	78	**98**	**94**	38	**3**	25
26	(WF9×R75)(38-11×CI.38B)	91	18	81	**100**	**94**	35	**3**	25
27	WF9×Oh7	99	20	83	**97**	**96**	31	**0**	**5**
28	(WF9×R75)(Oh7×Oh7A)	104	21	81	**85**	93	34	**1**	12
29	(WF9×R75)(Oh7×Oh7B)	95	18	79	**98**	**95**	30	**0**	**7**
30	WF9×Oh41	97	19	79	52	**99**	34	**1**	**4**
31	(WF9×R75)(Oh41×R118)	83	20	79	76	93	37	**2**	**5**
32	(WF9×R75)(Oh41×CI.317B)	89	23	77	64	**97**	40	**1**	**5**
33	WF9×187-2	68	20	83	**100**	93	35	**1**	13
34	(WF9×R75)(187-2×W187R)	72	18	81	**85**	**100**	34	**1**	14
35	(WF9×R75)(187-2×R84)	71	18	82	**94**	92	37	**1**	14
36	38-11×Oh7	**109**	21	80	**86**	**97**	39	**0**	15
37	(38-11×R76)(Oh7×Oh7A)	**109**	21	82	74	**100**	44	**1**	15
38	(38-11×CI.38B)(Oh7×Oh7A)	**110**	22	79	72	**97**	42	**0**	14
39	(38-11×R76)(Oh7×Oh7B)	108	22	82	74	**96**	43	**0**	15
40	(38-11×CI.38B)(Oh7×Oh7B)	102	20	83	**89**	**100**	41	**0**	24
41	38-11×Oh41	78	24	80	**84**	**96**	35	**2**	**1**
42	(38-11×R76)(Oh41×R118)	71	21	78	**84**	91	44	**0**	15
43	(38-11×CI.38B)(Oh41×R118)	72	21	76	**87**	**97**	42	**0**	**6**
44	(38-11×R76)(Oh41×CI.317B)	81	22	74	60	**94**	44	**0**	**5**
45	(38-11×CI.38B)(Oh41×CI.317B)	75	22	74	78	**95**	44	**0**	**5**
46	38-11×187-2	73	19	82	**90**	**99**	33	**1**	9
47	(38-11×R76)(187-2×W187R)	76	19	84	77	**100**	39	4	8
48	(38-11×CI.38B)(187-2×W187R)	76	20	85	**87**	**99**	35	**3**	14
49	(38-11×R76)(187-2×R84)	63	19	76	**87**	**95**	43	**2**	18
50	(38-11×CI.38B)(187-2×R84)	60	20	79	**97**	**99**	39	5	23
51	Oh7×Oh41	101	22	79	81	**94**	36	**0**	**3**
52	(Oh7×Oh7A)(Oh41×R118)	95	23	77	64	93	42	**0**	**4**
53	(Oh7×Oh7B)(Oh41×R118)	100	22	80	75	**100**	40	**0**	**2**
54	(Oh7×Oh7A)(Oh41×CI.317B)	**113**	25	79	45	**99**	45	**1**	**2**
55	(Oh7×Oh7B)(Oh41×CI.317B)	93	24	79	63	**95**	42	**0**	**5**

(Table is concluded on next page)

Table 9. — Concluded

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	A — Hybrids involving related inbreds — concluded								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
56	(Oh7×187-2)	108	20	84	71	**99**	36	**0**	**6**
57	(Oh7×Oh7A)(187-2×W187R)	94	22	82	59	**96**	37	**0**	**4**
58	(Oh7×Oh7B)(187-2×W187R)	97	19	82	56	**94**	37	**0**	**4**
59	(Oh7×Oh7A)(187-2×R84)	103	21	82	60	**99**	39	**0**	**7**
60	(Oh7×Oh7B)(187-2×R84)	98	22	82	74	**97**	36	**0**	**7**
61	Oh41×187-2	82	22	80	61	80	40	**0**	**4**
62	(Oh41×R118)(187-2×W187R)	64	22	81	67	**96**	40	**1**	**6**
63	(Oh41×CI.317B)(187-2×W187R)	65	26	80	45	**95**	41	**0**	**2**
64	(Oh41×R118)(187-2×R84)	55	21	77	76	**99**	40	**1**	12
65	(Oh41×CI.317B)(187-2×R84)	57	24	76	64	88	44	**2**	19
	Average	84	21	80	81	96	39	1	9
	B — Sister-line crosses								
66	R138×R158	72	21	79	**85**	93	38	4	**4**
67	R158×CI.42A	74	22	82	75	**97**	39	8	**7**
	Average	73	22	80	80	95	38	6	6
	C — Double crosses								
68	Ill. 1332	90	19	82	**94**	**99**	37	**1**	**7**
69	Ill. 1570	79	23	79	**90**	**96**	37	**2**	**7**
70	Ill. 3049	71	22	81	**92**	**96**	35	**1**	**3**
71	Ill. 6021	55	21	78	**86**	**94**	40	**1**	19
72	Ill. 6052	52	22	78	81	**96**	40	**2**	11
	Average	69	21	80	89	96	38	1	9
Average of 72 entries		82	21	80	81	96	39	2	9

Table 10. — DOUBLE CROSSES OF ILLINOIS 1851 MATURITY

Tested in South-Central Illinois, 1957-1959

(Data in boldface were not statistically different from the best performance for that characteristic. Absence of boldface figures in some columns is due to lack of statistical information.)

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	A — Three-year averages, 1957-1959								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
1	Ill. 1851	**105**	26	**77**	**85**	**99**	49	...	**4**
2	Ill. 1660	**103**	28	**77**	**82**	**98**	**45**	...	**1**
3	Ill. 3133	**99**	26	**80**	**86**	**99**	**45**	...	**4**
4	Ill. 1539A	**98**	29	**77**	**90**	**98**	49	...	**3**
5	Ill. 1928	**97**	27	**78**	**94**	**99**	**46**	...	**6**
6	U.S. 523W	**97**	29	76	69	**99**	**44**	...	**2**
7	Ill. 1852	**96**	28	73	**81**	96	**45**	...	**2**
8	Ill. 3129	**96**	26	**78**	**86**	**99**	**45**	...	**4**
9	Ill. 3140	**96**	28	76	**80**	**99**	49	...	**3**
10	Ill. 3147	**95**	26	**78**	**79**	**99**	47	...	**4**
11	Ill. 1856	**94**	28	74	**96**	**99**	**44**	...	**4**
12	Ill. 3126	**94**	**25**	**79**	**90**	**97**	**45**	...	**2**
13	Ill. 3145	**94**	27	**77**	**90**	96	**45**	...	8
14	Ill. 3135	**94**	27	76	**94**	**98**	**46**	...	**1**
15	Ill. 1850	**94**	28	74	**89**	**97**	**46**	...	**3**
16	Ill. 1849	**94**	28	72	**96**	**99**	**45**	...	**1**
17	Ill. 1893	**94**	**25**	75	**92**	**99**	47	...	**4**
18	Ill. 1913	**93**	**22**	**82**	**89**	**99**	**44**	...	**2**
19	Ill. 3149	**93**	**25**	**79**	**94**	96	**43**	...	**3**
20	Ill. 1909	**92**	**24**	**80**	**90**	95	**44**	...	**7**
21	Ill. 1918	**91**	26	**79**	**86**	**97**	**44**	...	**2**
22	Ill. 1948	**91**	27	**79**	**79**	**98**	**45**	...	**1**
23	Ill. 3131	**91**	27	**78**	**81**	**97**	47	...	**4**
24	Ill. 1332	**90**	**25**	**79**	**91**	**98**	**44**	...	**6**
25	AES 805	**89**	**24**	**77**	**93**	**98**	**44**	...	**7**
26	Ill. 3136	**89**	**25**	**78**	**94**	**99**	**43**	...	**1**
27	Ill. 1570	**88**	**25**	**77**	**89**	**98**	**43**	...	**1**
28	Ill. 1935	**88**	**23**	**78**	**88**	**99**	**43**	...	**7**
29	Ill. 200	**88**	26	**78**	74	**97**	**46**	...	**5**
30	U.S. 13	**87**	26	**78**	76	**97**	**46**	...	**2**
31	Ill. 1889	81	**25**	76	**91**	**98**	**43**	...	12
	Average	93	26	77	87	98	45	...	4
	B — Two-year averages, 1958-1959								
1	Ill. 3190	**125**	20	82	**94**	**98**	46	...	**4**
2	Ill. 3198A	**122**	20	**84**	84	**99**	46	...	**4**
3	Kan. 4003	**122**	20	**86**	78	**99**	46	...	**4**
4	Ky. 105	**120**	20	82	**88**	**97**	45	...	**6**
5	Ill. 1660	**119**	21	83	**93**	**98**	44	...	**1**
6	Ky. 5712W	**117**	21	81	**97**	**100**	**42**	...	**3**
7	Ill. 3193	**116**	19	**84**	**90**	**98**	44	...	**3**
8	Ill. 3192A	**116**	20	82	84	**96**	46	...	**2**
9	Ill. 1851	**114**	20	82	**90**	**99**	46	...	**6**
10	Ill. 3204A	**114**	20	80	**96**	**99**	46	...	**4**
11	Ill. 3214	**114**	20	82	**85**	**100**	44	...	**6**
12	Ill. 1856	**113**	20	82	**95**	**99**	44	...	**6**
13	Ill. 3197B	**112**	20	80	**94**	**98**	**43**	...	**4**
14	Ill. 3210	**112**	21	80	**96**	**97**	46	...	**8**
15	Ill. 1852	**112**	19	80	**88**	**98**	**43**	...	**3**
16	U.S. 523W	**112**	21	81	80	**99**	**43**	...	**4**
17	Ill. 1849	**112**	20	80	**99**	**100**	**43**	...	**2**
18	Ill. 3192	**112**	20	82	**86**	94	45	...	**0**
19	Ill. 1539A	**111**	20	80	**96**	**99**	46	...	**4**
20	Ill. 3135	**111**	**18**	82	**93**	**99**	46	...	**1**

(Table is continued on next page)

Table 10. — Continued

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	B — Two-year averages, 1958-1959 — continued								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
21	Ill. 3140	**111**	20	82	**97**	**100**	45	...	**5**
22	Ill. 3133	**110**	20	**84**	**90**	**99**	44	...	**6**
23	Ill. 3206	**110**	21	80	**96**	**98**	**43**	...	**4**
24	Ill. 1850	**108**	20	78	**96**	**96**	45	...	**4**
25	Ill. 3131	**108**	**18**	82	82	**99**	46	...	**6**
26	Ill. 3145	**108**	20	82	**91**	**98**	45	...	10
27	Ill. 1928	**107**	20	82	**96**	**99**	44	...	10
28	Ill. 3129	105	19	82	**90**	**99**	**42**	...	**6**
29	Ill. 3147	104	**18**	81	84	**99**	46	...	**6**
30	U.S. 13	104	**18**	83	83	**99**	44	...	**4**
31	Ill. 3149	102	**18**	82	**93**	**97**	**41**	...	**4**
32	Ill. 1909	102	**18**	**84**	84	**97**	**42**	...	10
33	Ill. 3126	102	20	82	**90**	**97**	**43**	...	**3**
34	Ill. 1893	102	**18**	78	**94**	**98**	44	...	**6**
35	Ill. 1332	100	**17**	82	**90**	**98**	**42**	...	**8**
36	Ill. 1913	100	**18**	**86**	**88**	**99**	**42**	...	**3**
37	Ill. 1918	100	20	83	83	**98**	44	...	**3**
38	Ill. 1948	98	22	82	81	**100**	**42**	...	**2**
39	Ill. 1570	96	**18**	82	**87**	**98**	**42**	...	**2**
40	Ill. 3136	94	**18**	80	**92**	**99**	**41**	...	**2**
41	Ill. 200	94	**18**	80	75	**96**	44	...	**8**
42	AES 805	92	**18**	81	**93**	**99**	**42**	...	10
43	Ky. 5708	92	20	77	**86**	**99**	**42**	...	**4**
44	Ill. 1935	88	**17**	80	**89**	**98**	**40**	...	11
45	Ill. 1889	84	19	79	**92**	**98**	**42**	...	18
	Average	107	19	82	90	98	44	...	5
	C — 1959 results (2 replications)								
1	AES 904W	**141**	24	79	**84**	**100**	42	**0**	**8**
2	Ky. 105	**126**	21	81	**95**	**98**	40	**0**	**2**
3	Tenn. 7110W	**123**	23	78	**91**	**100**	38	**2**	**2**
4	Kan. 4003	**122**	22	83	70	**100**	40	**1**	**4**
5	Ill. 3190	**121**	23	79	**92**	**98**	42	**0**	**6**
6	Ill. 3198A	**118**	22	81	76	**100**	42	**0**	**1**
7	Ky. 5712W	**118**	24	80	**98**	**100**	40	**1**	**0**
8	Mo. 881	**118**	24	78	**87**	**99**	40	**0**	**4**
9	Tenn. 7015	**118**	24	80	**81**	**100**	43	**1**	**6**
10	U.S. 642	**117**	25	79	72	**100**	42	**0**	**5**
11	Ill. 3154	**115**	24	78	**82**	**100**	39	**0**	**2**
12	Tenn. 5005	**114**	22	79	**80**	**100**	40	**0**	**2**
13	Tenn. 7018	**114**	22	83	77	**95**	42	**0**	**7**
14	Ill. 1660	113	23	81	**92**	**99**	40	**1**	**1**
15	Ill. 3157	112	20	81	54	**100**	42	**2**	**4**
16	Ill. 3214	112	23	79	76	**100**	42	**0**	**2**
17	Ill. 3251	112	23	80	**85**	**100**	42	**4**	**0**
18	U.S. 523W	112	24	78	69	**100**	40	**4**	**4**
19	U.S. 658	112	22	79	**82**	**98**	42	**3**	**8**
20	Ill. 1851	111	22	79	**86**	**100**	40	**2**	**8**
21	Ill. 3133	111	22	82	**86**	**99**	40	**4**	**2**
22	Ill. 3197B	111	22	78	**92**	**100**	40	**0**	**2**
23	Ill. 3362	111	22	81	**91**	**100**	40	**0**	10
24	Ill. 3140	110	22	80	**95**	**100**	40	**1**	**2**
25	Ill. 3192	110	23	79	79	**100**	42	**2**	**0**
26	Ill. 3193	110	22	81	**85**	**100**	40	**4**	**2**
27	Ill. 3135	109	20	81	**88**	**100**	40	**2**	**2**
28	Ill. 3204A	108	23	78	**95**	**100**	41	**2**	**1**
29	Ill. 3252	108	23	77	**99**	**95**	39	**0**	**3**
30	Ill. 3360	107	21	81	**85**	**100**	38	**1**	**5**
31	Kan. 2446W	107	22	76	**85**	**100**	40	**1**	**2**
32	Ill. 1539A	105	23	77	**92**	**99**	40	**2**	**3**
33	Ill. 1852	105	21	77	**81**	**99**	39	**0**	**5**
34	Ill. 1856	104	23	78	**95**	**100**	38	**1**	10
35	Ill. 3145	104	22	80	**86**	**99**	42	**1**	16

(Table is concluded on next page)

Table 10. — Concluded

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	C — 1959 results (2 replications) — concluded								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
36	Ill. 3192A	104	21	79	74	**96**	43	**1**	**3**
37	Ill. 1849	103	22	76	**99**	**100**	40	**4**	**2**
38	Ill. 3206	103	24	78	**96**	**99**	38	**1**	**4**
39	Ill. 3337B	103	20	82	**86**	**95**	40	**1**	**5**
40	Mo. 916	103	24	76	**97**	85	40	**0**	**6**
41	Tenn. 501W	103	23	76	**80**	**95**	38	**1**	**4**
42	Tenn. 8106W	103	23	78	**84**	**100**	38	**1**	11
43	Ill. 1332	102	19	80	**92**	**100**	39	**0**	12
44	Ill. 1928	101	23	79	**99**	**99**	40	**1**	18
45	Ill. 3131	101	20	81	72	**100**	40	**0**	**6**
46	Ill. 3210	101	24	77	**97**	**94**	42	**1**	**4**
47	Ill. 3335	101	21	78	79	**95**	40	**4**	**3**
48	Ill. 3355	101	22	81	**92**	**100**	**36**	**4**	**0**
49	Ill. 6021	101	21	80	**89**	**99**	40	**3**	**8**
50	U.S. 13	101	21	80	79	**100**	40	**2**	**5**
51	Ark. 5614	100	22	80	70	**100**	43	**4**	**4**
52	Ill. 6115	100	20	85	76	**100**	40	**4**	**2**
53	Ill. 1850	99	22	74	**97**	**94**	40	**1**	**5**
54	Ill. 3337A	99	19	80	**85**	**100**	39	**0**	**4**
55	Ill. 3129	97	22	79	**88**	**100**	38	**1**	**1**
56	Ill. 3149	97	20	80	**94**	**100**	**37**	**1**	**4**
57	Ill. 3341A	97	19	80	**88**	**100**	40	**1**	**6**
58	Ill. 1909	96	20	81	**81**	**96**	41	5	17
59	Ill. 1948	96	25	80	70	**100**	38	**0**	**1**
60	Ill. 3147	96	20	79	73	**99**	40	**4**	11
61	Ill. 3250	96	24	79	71	**100**	40	**0**	**1**
62	Ill. 3341	96	20	81	72	**99**	39	**0**	11
63	Kan. 2561W	96	22	77	**99**	**100**	**34**	**4**	**8**
64	Ill. 3337	95	19	79	75	**100**	**37**	**1**	**0**
65	VPI 653	95	22	80	**90**	**98**	**37**	**3**	**5**
66	Ill. 1570	94	20	79	**82**	**99**	38	**1**	**2**
67	Ill. 3126	94	22	78	**87**	**94**	39	**0**	**5**
68	N.C. 5113	94	25	83	**86**	90	40	5	9
69	Ill. 1918	93	23	81	72	**100**	38	**2**	**5**
70	Ill. 1964	93	20	79	72	**100**	40	**4**	9
71	Ill. 3339A	92	20	80	**91**	**99**	38	**3**	**4**
72	Ill. 6052	92	22	80	72	**99**	40	**4**	10
73	VPI 648	92	23	76	**99**	**100**	38	**0**	14
74	Ill. 1893	90	20	74	**94**	**99**	38	**4**	**5**
75	Ill. 1913	89	20	82	78	**100**	**36**	5	**4**
76	Ill. 1996	87	20	80	**86**	**100**	40	**0**	**0**
77	Ill. 3338A	87	20	82	**91**	**99**	38	**1**	**1**
78	Ill. 200	86	20	79	71	**100**	40	**0**	10
79	Ill. 3336	86	20	79	67	**96**	40	**0**	**0**
80	Ill. 3339	86	20	79	**91**	**100**	38	**0**	**6**
81	Ill. 3049	85	22	81	**86**	**100**	**34**	**1**	**1**
82	Ill. 3136	85	21	78	**92**	**100**	**36**	**0**	**2**
83	Ill. 3339B	84	20	79	**91**	**99**	38	**0**	**5**
84	AES 805	81	20	79	**92**	**100**	39	5	15
85	Ill. 3340	80	21	74	**90**	**98**	40	**3**	**8**
86	Ill. 1935	79	19	76	**91**	**100**	**37**	**1**	14
87	Ill. 6001	78	24	79	69	**100**	**35**	**0**	**6**
88	Ill. 3338	78	21	78	**87**	**96**	38	**1**	**5**
89	Ill. 6109	76	20	77	79	**100**	**36**	**1**	**8**
90	Ky. 5708	70	23	73	**82**	**100**	**36**	**0**	**2**
91	Ill. 1889	57	22	74	**95**	**99**	**36**	**0**	23
	Average	101	22	79	85	99	39	1	5

Table 11. — THREE-WAY CROSSES AND STANDARDS OF ILLINOIS 1851 MATURITY

Tested in South-Central Illinois, 1959

(Data in boldface were not statistically different from the best performance for that characteristic. Absence of boldface figures in some columns is due to lack of statistical information.)

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
	A — Inbred lines crossed with (B41 × Oh7A)								
1	R132	93	20	82	42	**99**	**32**	**0**	**3**
2	R134	**113**	22	79	66	**100**	36	**5**	**0**
3	R197	104	22	82	62	**100**	35	**5**	**2**
4	R198	101	24	83	34	**99**	36	13	**4**
5	K7-25	99	23	78	**81**	**100**	34	**1**	**0**
6	K7-47	**110**	23	81	**75**	**100**	36	**0**	10
7	K7-50	104	22	85	**90**	**100**	**33**	**2**	**4**
8	Mo5	92	21	78	59	**100**	**29**	**0**	8
9	Mo6	**112**	21	79	**83**	**99**	36	**1**	**5**
10	Mo7	99	24	78	37	**98**	38	**0**	8
11	Mo0225	**117**	24	78	**95**	**100**	36	**4**	**5**
12	Mo2788A	91	21	76	42	**95**	**32**	**0**	**2**
13	Mo9294	**106**	24	80	**71**	**100**	36	**1**	**4**
14	Mo11077	**115**	22	86	40	**98**	38	**3**	**3**
15	Mo61072	**107**	23	80	**98**	**100**	36	**0**	**2**
16	Ok2011	**110**	22	82	60	**100**	34	16	**4**
17	Ok2012	**106**	23	81	39	**99**	36	**4**	**3**
18	Ok2013	85	23	80	**94**	**95**	34	**1**	**5**
19	Ok4001	98	23	80	**71**	**99**	36	**0**	**2**
20	Ok4002	**105**	21	80	**89**	**100**	37	**1**	**5**
21	Ok4003	103	22	81	51	**100**	**32**	**0**	**1**
22	Ok7001	**115**	21	80	61	**100**	36	**1**	**5**
23	Ok7002	92	19	81	42	**100**	38	**5**	**4**
24	Va12C	102	21	74	**96**	**99**	35	**1**	**4**
25	Va23	89	23	80	**93**	**94**	**31**	**0**	**3**
26	Va27	**117**	21	79	54	**100**	36	**2**	**0**
27	Va29	**118**	29	81	61	**100**	36	**4**	**0**
28	Va35C	**114**	21	79	**88**	**100**	36	**2**	**1**
29	CI.31A	**109**	22	80	**81**	**100**	34	**1**	**4**
	Average	104	22	80	67	99	35	3	3
	B — Standard checks								
31	Ill. 1851	**112**	20	80	**73**	**99**	38	**0**	**4**
30	B41×Oh7A	103	21	81	**78**	91	34	**6**	**1**
33	U.S. 13	96	19	83	68	**98**	36	**5**	**3**
32	Ill. 1913	91	19	87	**74**	**100**	**33**	**0**	**1**
36	R158×CI.42A	86	20	86	**92**	**94**	**33**	**1**	**1**
35	R138×R158	78	20	83	**83**	**92**	35	**0**	**0**
34	Hy2×R158	65	20	81	**95**	**100**	34	**1**	**2**
	Average	90	20	83	80	96	35	2	2
Average of 36 entries		102	22	81	70	98	35	2	3

Table 12. — THREE-WAY CROSSES AND STANDARDS Tested in South-Central Illinois, 1959

(Data in boldface were not statistically different from the best performance for that characteristic)

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Height		Dropped ears	Smut
							Plant	Ear		
	A — Inbred lines crossed with (WF9 × Oh43)									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*in.*	*perct.*	*perct.*
1	R71	89	**19**	82	**96**	**100**	**60**	**25**	**3**	**4**
2	R74	79	20	81	**91**	**98**	65	**26**	**1**	**0**
3	R74A	77	20	75	60	**100**	68	**28**	**1**	**5**
4	R76	**97**	20	81	**94**	**98**	70	31	**3**	17
5	R78	88	20	80	**91**	**98**	**62**	**28**	**4**	**7**
6	R84	**96**	20	79	**89**	**100**	**64**	30	**4**	**3**
7	R101	83	**19**	81	**95**	**100**	**63**	**29**	**1**	**6**
8	R104	87	**19**	**84**	**90**	**100**	**57**	**29**	**4**	**4**
9	R109B	90	21	81	**100**	**100**	65	**29**	**1**	**6**
10	R112	**96**	**19**	82	**92**	**98**	67	**27**	**0**	**6**
11	R113	55	20	76	**97**	**98**	**60**	**27**	**0**	**1**
12	R114	82	**19**	80	**99**	**100**	70	31	**3**	11
13	R132	**108**	20	82	85	**100**	**62**	**29**	**1**	**0**
14	R134	**100**	20	80	**95**	**99**	70	35	**1**	**3**
15	R135	74	20	**83**	**90**	91	**63**	30	**1**	9
16	R151	**106**	21	**83**	**94**	**100**	65	30	**1**	**1**
17	R154	95	**19**	**83**	85	**100**	**62**	**27**	**1**	**1**
18	R158	75	**19**	81	**97**	**98**	68	**29**	10	**5**
19	R159	89	20	81	**95**	**100**	66	**27**	**1**	**8**
20	R166	84	20	**85**	34	**99**	**59**	**24**	**0**	**0**
21	R168	89	**18**	**85**	**99**	**100**	65	**27**	**3**	**3**
22	R172	95	20	**83**	**99**	**98**	65	31	**3**	**3**
23	R180	89	**19**	**83**	**89**	**100**	65	**29**	**1**	**4**
24	R181	**100**	**18**	79	**90**	**100**	66	**29**	**1**	**1**
25	R182	77	**18**	82	**100**	**100**	68	30	**4**	**1**
26	R183	80	22	80	**99**	**100**	70	30	**1**	**3**
27	R192	93	20	79	**99**	**100**	**64**	**29**	**0**	18
28	R193	**98**	20	81	**95**	**96**	69	31	**0**	**1**
29	R194	**99**	21	82	**94**	**100**	65	32	**0**	**3**
30	R195	91	**18**	80	**98**	**100**	66	**28**	**0**	9
31	R196	**96**	20	81	**99**	**98**	69	34	**1**	**1**
32	R197	**102**	21	**83**	**94**	**100**	66	33	8	**3**
33	R198	**105**	21	**83**	**90**	**99**	69	32	8	13
	Average	90	20	81	92	99	65	29	2	5
	B — Single crosses									
34	WF9×Oh43	**100**	**19**	**84**	**99**	**98**	65	**26**	**0**	**5**
35	WF9×B37	83	**19**	78	**100**	**100**	66	31	5	24
36	B41×Oh7A	**116**	22	80	84	**100**	71	34	**2**	**2**
	Average	100	20	81	94	99	67	30	2	10
	C — Inbred lines crossed with (WF9 × B37)									
1	R71	**97**	22	79	**96**	**100**	74	37	**1**	**1**
2	R74	**100**	19	81	**99**	**100**	**66**	**29**	5	**3**
3	R74A	57	20	70	**98**	**100**	**69**	**33**	**3**	11
4	R76	81	20	78	**100**	**100**	71	**33**	**3**	15
5	R78	89	20	81	**94**	**93**	**66**	**31**	**0**	**6**
6	R84	89	19	81	89	**100**	**63**	**31**	**0**	**6**
7	R101	84	19	82	**91**	**100**	**63**	**28**	**1**	9
8	R104	90	19	**84**	59	**98**	71	**34**	**1**	**3**
9	R109B	**94**	20	81	**93**	**95**	**66**	**29**	**1**	**3**
10	R112	**93**	19	82	**96**	**100**	**66**	**31**	**0**	**8**
11	R113	67	20	77	**100**	**100**	**66**	**32**	**0**	**4**
12	R114	87	19	78	**100**	**100**	79	39	**0**	**5**
13	R132	**97**	**18**	82	60	**100**	**65**	**31**	**0**	**3**
14	R134	**104**	20	78	**97**	**96**	76	37	5	**0**
15	R135	70	19	80	**98**	**100**	**68**	**34**	**4**	14

(Table is continued on next page)

Table 12. — Continued

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Height		Dropped ears	Smut
							Plant	Ear		
	C — Inbred lines crossed with (WF9 × B37) — concluded									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*in.*	*perct.*	*perct.*
16	R151	**105**	21	83	**94**	**96**	75	**34**	**3**	**8**
17	R154	**101**	20	83	**96**	**100**	**66**	**29**	**1**	**4**
18	R158	71	19	80	**98**	**100**	72	**33**	**4**	**5**
19	R159	87	19	78	**99**	**100**	**67**	**31**	**0**	10
20	R166	89	**18**	**86**	78	**100**	**64**	**28**	**0**	**1**
21	R168	84	19	80	**98**	**100**	**67**	**33**	**1**	**5**
22	R172	**101**	19	82	**99**	**100**	**65**	**32**	**1**	**4**
23	R180	76	19	82	**93**	**93**	**68**	**33**	**3**	**7**
24	R181	**94**	**18**	79	**93**	**100**	**69**	**28**	**0**	9
25	R182	72	**18**	81	**100**	**96**	**64**	**29**	**0**	**3**
26	R183	86	20	80	**100**	**99**	74	35	**0**	**3**
27	R192	**97**	21	80	**96**	**100**	73	**32**	**0**	15
28	R193	90	19	82	**96**	**100**	72	**33**	**1**	**3**
29	R194	**101**	20	81	**93**	**100**	70	**30**	**0**	**3**
30	R195	76	**18**	79	**96**	**100**	**67**	35	**1**	**4**
31	R196	79	19	79	**100**	**95**	**69**	36	**1**	**7**
32	R197	**103**	20	82	90	**96**	73	36	**1**	**3**
33	R198	**104**	20	82	**94**	**99**	73	35	**4**	19
	Average	88	19	80	93	99	69	32	1	6
	D — Single crosses									
34	WF9×Oh43	**106**	19	**85**	**95**	**100**	**65**	**30**	**1**	**1**
35	WF9×B37	88	19	79	**100**	**100**	71	**32**	**2**	15
36	B41×Oh7A	**102**	22	81	**91**	**95**	72	**34**	**3**	**1**
	Average	99	20	82	96	98	69	32	2	6
	E — Inbred lines crossed with (B41 × Oh7A)									
1	R71	**106**	22	82	**91**	**98**	**65**	33	**0**	**3**
2	R74	98	21	81	**100**	**98**	**63**	**26**	**0**	**3**
3	R74A	74	20	74	**99**	**100**	**67**	32	**1**	9
4	R76	**107**	20	81	**96**	**100**	77	39	**4**	21
5	R78	82	22	80	**90**	**99**	**62**	32	**1**	**1**
6	R84	83	20	80	**94**	**100**	68	34	**0**	**8**
7	R101	75	20	**83**	82	**99**	**65**	33	**0**	**5**
8	R104	**99**	19	**85**	64	**100**	68	37	**0**	**1**
9	R109B	89	21	81	**99**	**100**	**67**	33	**1**	**1**
10	R112	90	20	81	**94**	**100**	**61**	**28**	**1**	**4**
11	R113	59	21	77	**99**	**99**	**63**	31	**0**	**0**
12	R114	72	19	77	**96**	**99**	74	35	**1**	10
13	R132	93	20	**83**	43	**100**	70	33	**0**	**1**
14	R134	**114**	21	78	**94**	**99**	78	38	**1**	**0**
15	R135	80	20	81	**87**	**99**	74	38	**0**	15
16	R151	**112**	21	**85**	**92**	**96**	71	39	**3**	**4**
17	R154	88	20	**84**	71	**100**	**67**	33	**0**	**0**
18	R158	79	19	82	**96**	**98**	73	32	**1**	**0**
19	R159	90	22	80	**99**	**100**	70	34	**0**	15
20	R166	89	20	**86**	35	**99**	**61**	**30**	**1**	**1**
21	R168	90	19	**84**	**94**	**100**	**64**	33	**1**	**6**
22	R172	**103**	19	**83**	**98**	**98**	**65**	32	**1**	**1**
23	R180	89	21	81	**91**	**99**	72	34	**3**	**4**
24	R181	**104**	**18**	82	58	**99**	76	36	**1**	**1**
25	R182	85	20	81	**98**	**100**	70	31	**1**	**0**
26	R183	95	22	80	**98**	**100**	77	39	**0**	**5**
27	R192	**101**	23	82	82	**99**	74	36	**1**	12
28	R193	98	20	**83**	**89**	**100**	**66**	31	**0**	**1**
29	R194	94	21	81	**91**	**100**	69	35	**0**	**3**
30	R195	97	19	**83**	**90**	**100**	**65**	32	**0**	**3**
31	R196	**107**	21	81	**98**	**100**	**66**	32	**3**	**1**
32	R197	**103**	21	81	80	**99**	**66**	34	8	**4**
33	R198	**102**	22	**83**	70	**100**	69	34	5	10
	Average	92	20	81	87	99	69	34	1	5

(Table is concluded on next page)

Table 12. — Concluded

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Height		Dropped ears	Smut
							Plant	Ear		
	F — Single crosses									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*in.*	*perct.*	*perct.*
34	WF9×Oh43	95	19	**86**	**95**	94	**63**	**26**	**0**	**1**
35	WF9×B37	74	19	80	**99**	**100**	**65**	**30**	**2**	12
36	B41×Oh7A	**108**	22	80	80	**100**	74	37	**0**	**1**
	Average	92	20	82	91	98	67	31	1	5
	G — Mean of inbred lines crossed with three testers									
1	R71	97	21	81	**95**	**99**	66	32	**1**	**3**
2	R74	93	20	81	**97**	**98**	65	**27**	**2**	**2**
3	R74A	69	20	73	**98**	**100**	68	31	**2**	8
4	R76	95	20	80	**97**	**99**	73	34	3	18
5	R78	86	21	80	**92**	96	**63**	30	**2**	**5**
6	R84	89	20	80	90	**100**	65	31	**1**	**5**
7	R101	80	19	82	90	**100**	**64**	30	**1**	7
8	R104	92	19	84	71	**99**	65	33	**2**	**3**
9	R109B	91	21	81	**97**	**98**	66	30	**1**	**3**
10	R112	93	19	82	**94**	**99**	65	**29**	**0**	6
11	R113	60	20	76	**99**	**99**	**63**	30	**0**	**2**
12	R114	80	19	78	**98**	**100**	74	35	**1**	9
13	R132	**99**	19	82	63	**100**	65	31	**0**	**1**
14	R134	**106**	21	79	**95**	**98**	75	36	3	**1**
15	R135	75	20	81	**92**	**97**	68	34	**2**	13
16	R151	**107**	21	84	**93**	**98**	70	34	**2**	**4**
17	R154	94	20	84	84	**100**	65	30	**1**	**2**
18	R158	75	19	81	**97**	**98**	71	31	5	**3**
19	R159	89	20	80	**98**	**100**	68	30	**0**	11
20	R166	87	19	**86**	49	**99**	**61**	**27**	**0**	**1**
21	R168	88	19	83	**97**	**100**	65	31	**2**	**5**
22	R172	**100**	20	83	**98**	**98**	65	32	**2**	**3**
23	R180	85	20	82	91	**97**	68	32	**2**	**5**
24	R181	**99**	**18**	80	80	**100**	70	31	**1**	**4**
25	R182	78	19	81	**99**	**99**	67	30	**2**	**1**
26	R183	87	21	80	**99**	**100**	74	35	**0**	**3**
27	R192	97	21	80	**92**	**100**	70	32	**0**	15
28	R193	95	20	82	**93**	**99**	69	32	**0**	**2**
29	R194	98	21	82	**93**	**100**	68	32	**0**	**3**
30	R195	88	19	80	**95**	**100**	66	32	**0**	**5**
31	R196	94	20	80	**99**	**98**	68	34	**2**	**3**
32	R197	**102**	21	82	88	**98**	68	34	5	**3**
33	R198	**104**	21	83	85	**99**	70	34	5	14
	Average	90	20	81	91	99	68	32	2	5
	H — Mean of three single-cross testers									
34	WF9×Oh43	**100**	19	85	**96**	**97**	**64**	**27**	**0**	**2**
35	WF9×B37	82	19	79	**99**	**100**	67	31	3	17
36	B41×Oh7A	**109**	22	80	85	**98**	72	35	**2**	**1**
	Average	97	20	81	93	98	68	31	2	7

Table 13. — STATE-WIDE PERFORMANCE OF ILLINOIS THREE-WAY CROSSES AND STANDARDS

Tested in Illinois, 1959

(Data in boldface were not statistically different from the best performance for that characteristic)

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Height		Dropped ears	Smut
							Plant	Ear		
	A — Inbred lines crossed with (WF9 × Oh43)									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*in.*	*perct.*	*perct.*
1	R71	98	22	82	**94**	**99**	71	**31**	**2**	**4**
2	R74	81	23	79	**92**	**98**	73	**31**	**0**	**1**
3	R74A	71	23	74	**97**	**97**	75	**31**	**1**	7
4	R76	98	23	79	81	94	80	39	6	9
5	R78	94	23	81	83	**96**	73	34	4	5
6	R84	86	22	79	87	95	73	37	4	6
7	R101	90	22	80	**90**	**99**	75	34	**1**	8
8	R104	90	22	**83**	86	**99**	71	34	**2**	5
9	R109B	92	23	81	**97**	94	74	34	**1**	**3**
10	R112	100	21	82	**88**	**96**	76	**32**	**2**	8
11	R113	79	21	76	**88**	**98**	71	33	**0**	**3**
12	R114	82	21	79	**95**	**97**	81	35	**1**	9
13	R132	101	23	80	73	**100**	74	35	**1**	**2**
14	R134	**108**	23	79	**94**	95	82	39	**2**	**3**
15	R135	82	22	**83**	80	92	74	35	5	9
16	R151	**114**	23	**83**	**89**	**99**	77	35	**2**	**3**
17	R154	**108**	22	82	78	**97**	76	34	**1**	**3**
18	R158	86	21	81	**94**	**99**	80	35	7	**3**
19	R159	84	23	79	**94**	**98**	72	**31**	**1**	**4**
20	R166	85	23	**83**	59	**96**	**66**	**29**	**0**	**2**
21	R168	100	20	**84**	**92**	**99**	73	**32**	**2**	**3**
22	R172	**105**	22	82	**94**	**99**	76	36	**1**	**2**
23	R180	84	23	79	85	**98**	72	**32**	4	5
24	R181	**105**	**19**	79	80	**98**	76	33	**1**	**1**
25	R182	83	21	81	**96**	**96**	78	35	4	**3**
26	R183	69	23	78	**90**	**99**	80	36	**1**	5
27	R192	93	23	79	**91**	**99**	77	34	**1**	12
28	R193	97	22	80	87	**97**	78	33	**1**	**3**
29	R194	92	24	80	82	**99**	75	36	**1**	**3**
30	R195	88	21	79	**93**	**99**	77	35	**1**	6
31	R196	92	22	80	**96**	**99**	78	38	3	**2**
32	R197	**105**	25	81	**88**	**97**	77	38	5	**2**
33	R198	103	24	82	85	**98**	79	37	4	13
	Average	92	22	80	88	97	75	34	2	5
	Tester WF9×Oh43	98	22	81	**93**	**97**	75	**32**	**2**	**3**
	B — Inbred lines crossed with (WF9 × B37)									
1	R71	98	25	77	**95**	**95**	80	37	**3**	**3**
2	R74	94	24	78	**98**	89	77	**34**	**3**	**5**
3	R74A	52	24	69	**95**	**99**	80	**35**	**2**	**8**
4	R76	81	23	77	**94**	**96**	82	39	**3**	16
5	R78	87	24	79	84	**96**	77	**33**	**1**	9
6	R84	68	22	76	90	**99**	77	38	**1**	12
7	R101	86	22	79	**92**	**98**	**74**	**34**	**0**	**8**
8	R104	87	22	**82**	71	**98**	78	38	**2**	**3**
9	R109B	85	24	78	**94**	**95**	78	**35**	**1**	**6**
10	R112	93	22	80	**93**	**98**	**76**	**35**	**2**	9
11	R113	78	22	75	**95**	**99**	**74**	37	**1**	**6**
12	R114	85	23	76	**96**	**99**	85	40	**0**	**4**
13	R132	97	22	79	58	**98**	**75**	**36**	**1**	**5**
14	R134	97	24	76	**97**	**95**	83	39	6	**4**
15	R135	75	23	79	87	89	79	40	4	16

(Table is continued on next page)

Table 13. — Continued

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Height		Dropped ears	Smut
							Plant	Ear		
B — Inbred lines crossed with (WF9 × B37) — concluded										
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*in.*	*perct.*	*perct.*
16	R151	**111**	24	80	90	**98**	84	40	**3**	**4**
17	R154	**105**	22	**81**	83	**98**	80	37	**1**	**4**
18	R158	75	**21**	77	**95**	**95**	84	38	4	**6**
19	R159	78	23	76	**97**	**99**	77	**36**	**0**	9
20	R166	91	23	**82**	85	**98**	**73**	**34**	**1**	**5**
21	R168	97	**21**	80	**98**	**98**	**75**	**34**	**0**	**8**
22	R172	95	23	78	**97**	**100**	**76**	37	**1**	**4**
23	R180	79	22	79	**94**	**95**	**74**	**35**	4	**8**
24	R181	**103**	**21**	78	**93**	**99**	79	**34**	**1**	**5**
25	R182	69	**21**	77	**98**	88	79	**35**	**1**	**5**
26	R183	61	24	76	**99**	**97**	81	40	**0**	**4**
27	R192	94	24	77	**93**	**98**	82	37	**0**	13
28	R193	83	23	78	90	**99**	79	**35**	**2**	**4**
29	R194	95	25	79	**93**	**98**	78	38	**1**	**5**
30	R195	82	**21**	77	**93**	**97**	77	39	**1**	**6**
31	R196	88	23	77	**93**	**98**	81	40	**1**	**7**
32	R197	**105**	25	79	82	**96**	81	41	**2**	**3**
33	R198	89	25	78	88	**97**	83	41	5	18
	Average	87	23	78	91	97	79	37	2	7
Tester WF9×B37		79	23	76	**95**	**99**	77	**36**	**2**	12
C — Inbred lines crossed with (B41 × Oh7A)										
1	R71	97	26	80	**90**	**98**	77	40	**1**	**3**
2	R74	**102**	25	79	**93**	**99**	76	**36**	**0**	**3**
3	R74A	38	26	72	**98**	**100**	74	**37**	**2**	11
4	R76	96	25	77	84	**100**	85	46	**2**	16
5	R78	70	26	79	70	**99**	75	39	**0**	9
6	R84	55	24	77	**90**	**99**	76	42	**2**	9
7	R101	69	23	80	86	**99**	76	39	**1**	8
8	R104	91	23	**82**	74	96	76	41	**1**	**4**
9	R109B	81	26	78	**95**	**99**	78	42	**1**	**5**
10	R112	82	24	80	**92**	**99**	74	**35**	**2**	9
11	R113	59	24	76	**97**	**99**	**70**	39	**0**	**6**
12	R114	75	23	76	**91**	**98**	82	41	**1**	9
13	R132	79	24	79	53	**98**	79	41	**2**	**4**
14	R134	94	26	78	**90**	**99**	82	42	5	**3**
15	R135	54	24	80	**89**	**99**	79	42	3	12
16	R151	**109**	25	**81**	86	**98**	82	43	4	**6**
17	R154	96	23	**81**	66	**100**	79	41	**2**	**1**
18	R158	75	23	80	**96**	**97**	84	41	4	**1**
19	R159	67	27	76	**97**	**100**	78	39	**0**	8
20	R166	79	24	**81**	48	**99**	**72**	**37**	**1**	**3**
21	R168	93	22	**83**	**96**	95	75	39	**1**	10
22	R172	91	23	**81**	**92**	**97**	78	41	**1**	**5**
23	R180	76	24	78	83	**99**	75	**37**	3	**3**
24	R181	**102**	**21**	79	67	**99**	81	40	**1**	**4**
25	R182	79	23	79	**97**	**99**	78	**38**	**2**	**1**
26	R183	67	25	79	**95**	**98**	81	44	**1**	**4**
27	R192	80	26	77	80	**99**	81	42	**0**	11
28	R193	84	24	78	87	**100**	77	**37**	3	**2**
29	R194	63	27	78	**91**	**99**	77	41	**2**	**4**
30	R195	77	23	78	**93**	**99**	76	42	**1**	**6**
31	R196	85	24	77	**90**	**98**	78	41	**2**	**2**
32	R197	90	26	78	84	**97**	76	41	4	**3**
33	R198	81	26	80	72	**99**	81	46	**2**	11
	Average	80	24	79	85	99	78	40	2	6
Tester B41×Oh7A		68	28	74	68	**98**	79	41	**1**	**3**

(Table is concluded on next page)

Table 13. — Concluded

Code	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Height		Dropped ears	Smut
							Plant	Ear		
	D — Mean of inbred lines crossed with three testers and grown at three locations									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*in.*	*perct.*	*perct.*
1	R71	98	25	80	**93**	**97**	76	36	**2**	**3**
2	R74	93	24	79	**94**	95	75	**34**	**1**	**3**
3	R74A	54	24	72	**96**	**99**	76	**35**	**1**	8
4	R76	92	24	78	86	**97**	82	41	4	13
5	R78	83	24	80	79	**97**	75	**35**	**2**	8
6	R84	70	23	78	89	**98**	75	39	3	9
7	R101	81	22	80	89	**99**	75	**35**	**1**	8
8	R104	89	22	**82**	77	**98**	75	38	**2**	**4**
9	R109B	86	24	79	**95**	96	76	37	**1**	**4**
10	R112	92	23	81	91	**98**	75	**34**	**2**	9
11	R113	72	22	76	**93**	**99**	**72**	36	**0**	**5**
12	R114	81	22	77	**94**	**98**	83	38	**1**	7
13	R132	92	23	80	61	**98**	76	37	**1**	**3**
14	R134	100	24	78	**93**	96	82	40	4	**3**
15	R135	70	23	81	85	93	77	39	4	12
16	R151	**111**	24	81	88	**98**	81	39	3	**5**
17	R154	103	22	**82**	76	**98**	78	37	**2**	**3**
18	R158	79	22	79	**95**	**97**	83	38	5	**3**
19	R159	76	24	77	**96**	**99**	76	36	**1**	7
20	R166	85	23	**82**	64	**98**	**70**	**34**	**1**	**3**
21	R168	97	21	**82**	**95**	**97**	74	**35**	**1**	7
22	R172	97	23	80	**94**	**99**	76	38	**1**	**4**
23	R180	79	23	79	88	**97**	74	**35**	3	**5**
24	R181	104	**20**	79	80	**99**	79	36	**1**	**3**
25	R182	77	22	79	**97**	94	78	36	**2**	**3**
26	R183	66	24	78	**95**	**98**	81	40	**1**	**4**
27	R192	89	24	78	88	**99**	80	38	**0**	12
28	R193	88	23	79	88	**99**	78	**35**	**2**	**3**
29	R194	84	25	79	89	**99**	76	38	**1**	**4**
30	R195	82	21	78	**93**	**98**	77	39	**1**	6
31	R196	89	23	78	**93**	**98**	79	39	**2**	**4**
32	R197	100	25	79	85	**97**	78	40	4	**3**
33	R198	91	25	80	82	**98**	81	41	4	14
	Average	86	23	79	88	98	77	37	2	6
	Average of 3 testers	82	24	77	85	**98**	77	36	**2**	6

Entry	Acre yield	Oil		Protein		Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut
A — Northern Illinois, DeKalb, 1958											
	bu.	*perct.*	*lb. per acre*	*perct.*	*lb. per acre*	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
Ill. 6052[b]	124	5.44	378	10.44	725	40	83	66	99	59	..
U.S. 13	122	4.49	307	9.44	645	34	76	69	100	57	..
Ill. 6021[b]	102	5.41	309	9.00	514	39	75	48	98	62	..
Average	116	5.11	331	9.63	628	38	78	61	99	59	..
B — North-Central Illinois, Peoria, 1958-1959											
Ill. 6052[b]	106	6.73	399	10.10	600	22	80	74	99	58	8
Ill. 6021[b]	104	5.72	333	9.50	553	20	82	81	96	58	8
Average	105	6.22	366	9.80	576	21	81	78	98	58	8
C — Central Illinois, Urbana, 1954-1959											
U.S. 13	110	4.72	291	10.30	634	20	..	86	..	..	..
Ill. 6052[b]	103	6.37	367	11.32	653	22	..	81	..	..	..
Ill. 6021[b]	102	6.31	360	11.11	635	20	..	84	..	..	..
Average	105	5.80	339	10.91	641	21	..	84	..	..	..
D — Central Illinois, Urbana, 1958-1959											
R182(38-11×K4)	97	5.13	279	10.20	554	..	..	95	97	..	..
R158(38-11×K4)	97	5.05	274	11.02	599	..	..	91	98	..	..
U.S. 13	96	4.40	237	9.80	527	..	..	92	98	..	..
Ill. 6021[b]	92	5.92	305	10.49	540	..	..	86	98	..	..
R199(38-11×K4)	88	5.64	278	9.76	481	..	..	88	96	..	..
Ill. 6115	88	5.25	259	11.11	548	..	..	90	98	..	..
R207(38-11×K4)	88	4.49	221	10.17	501	..	..	94	98	..	..
Ill. 6052[b]	86	6.36	306	10.67	514	..	..	78	95	..	..
Ill. 6109	86	5.22	251	11.02	531	..	..	87	96	..	..
R213(38-11×K4)	84	5.50	259	10.06	473	..	..	92	96	..	..
Ill. 6062	82	6.04	277	11.09	509	..	..	84	97	..	..
Ill. 6001[b]	78	6.88	300	10.39	454	..	..	84	98	..	..
R183(38-11×K4)	78	5.38	235	10.97	479	..	..	88	98	..	..
R85(38-11×K4)	76	4.98	212	11.75	500	..	..	88	93	..	..
R120(38-11×K4)	75	4.87	205	12.58	528	..	..	96	96	..	..
Average	86	5.41	260	10.74	516	..	..	89	97	..	..
E — South-Central Illinois, Brownstown, 1958-1959											
Ill. 6021[b]	105	6.28	369	10.30	606	18	83	88	98	46	5
U.S. 13	104	4.58	267	10.08	587	18	84	89	96	43	3
Ill. 6052[b]	102	5.82	332	10.75	614	18	83	84	96	46	7
Average	104	5.56	323	10.38	602	18	83	87	97	45	5

[a] Data not analyzed statistically. [b] Available for commercial production.

Table 15. — DOUBLE-CROSS HYBRID NUMBERS, PEDIGREES, AND INDEX TO TABLES

(The order of the single crosses does not indicate which should be used as seed or pollen parent.)

Hybrid	Pedigree	Table No.
AES 510	(WF9 x W22) (H19 x B9)	2ABC
AES 514	(B14 x A239) (A295 x W64A)	2ABC
AES 601	(M14 x B14) (WF9 x W22)	2ABC
AES 610 (Ill. 1580)	(M14 x A73) (Oh43 x Oh51A)	2ABC
AES 702 (Ill. 1790)	(C103 x M14) (Hy2 x WF9)	2ABC, 4ABC, 6ABC
AES 703 (Ill. 3019A)	(WF9 x Oh43) (B14 x B38)	4ABC
AES 704 (Ill. 3016A)	(WF9 x Oh43) (B14 x B37)	4ABC
AES 705 (Ill. 3011)	(C103 x Oh43) (WF9 x B14)	4ABC, 5C, 6BC
AES 805 (Ill. 1770)	(C103 x Oh45) (WF9 x 38-11)	4ABC, 6ABC, 10ABC
AES 809	(C103 x Oh43) (P8 x WF9)	6ABC
AES 810	(WF9 x H50) (Oh7B x Oh45)	6ABC
AES 904W	(K64 x Mo22) (T111 x T115)	10C
Ill. 21	(Hy2 x 187-2) (WF9 x 38-11)	2ABC, 4ABC, 6ABC
Ill. 101	(M14 x WF9) (187-2 x W26)	2ABC
Ill. 200	(WF9 x 38-11) (L317 x K4)	10ABC
Ill. 1091A	(Hy2 x 187-2) (M14 x WF9)	2ABC
Ill. 1277	(M14 x WF9) (I.205 x 187-2)	2ABC
Ill. 1332	(Hy2 x Oh7) (WF9 x 38-11)	4ABC, 6ABC, 7C, 9C, 10ABC
Ill. 1332-3	(WF9 x 38-11) (Oh7 x Cl.42A)	6ABC
Ill. 1332-4	(HyR x Oh7) (WF9TMS x 38-11)	6ABC
Ill. 1539A	(38-11 x Cl.7) (K201 x Cl.21E)	10ABC
Ill. 1555A	(WF9 x Oh51A) (I.224 x Oh28)	2ABC
Ill. 1559B	(M14 x Oh28) (WF9 x Oh51A)	2ABC
Ill. 1560A	(WF9 x Oh51A) (I.205 x Oh28)	2ABC
Ill. 1570	(Hy2 x Oh41) (WF9 x 38-11)	4ABC, 6ABC, 9C, 10ABC
Ill. 1660	(K4 x K201) (Oh7 x Cl.21E)	10ABC
Ill. 1813	(C103 x Oh45) (Hy2 x WF9)	6ABC
Ill. 1831	(WF9 x W146) (K237 x Oh45)	4ABC
Ill. 1849	(C103 x 38-11) (K201 x Cl.21E)	10ABC
Ill. 1850	(C103 x Cl.21E) (38-11 x K201)	10ABC
Ill. 1851	(C103 x 38-11) (Oh7 x Cl.21E)	6ABC, 10ABC, 11B
Ill. 1852	(C103 x Cl.21E) (38-11 x Oh7)	10ABC
Ill. 1856	(38-11 x Oh7) (K201 x Cl.21E)	6ABC, 10ABC
Ill. 1862 (Iowa 4779)	(M14 x WF9) (Oh43 x Oh51A)	2ABC
Ill. 1864	(M14 x WF9) (Oh43 x W22)	2ABC
Ill. 1880	(R103 x R104) (WF9 x 38-11)	6ABC
Ill. 1889	(C103 x Oh45) (38-11 x Oh29)	10ABC
Ill. 1890	(C103 x Oh45) (R75 x 38-11)	6ABC
Ill. 1893	(C103 x 38-11) (Oh7B x Oh29)	6ABC, 10ABC
Ill. 1909	(R130 x R151) (WF9 x 38-11)	10ABC
Ill. 1913	(R151 x R154) (WF9 x 38-11)	10ABC, 11B
Ill. 1916	(R130 x R154) (WF9 x 38-11)	6ABC
Ill. 1918	(R151 x R153) (WF9 x 38-11)	6ABC, 10ABC
Ill. 1919	(R130 x R156) (WF9 x 38-11)	6ABC
Ill. 1921	(R71 x R105) (WF9 x 38-11)	4ABC, 6ABC
Ill. 1922	(Hy2 x WF9) (R71 x R105)	6ABC
Ill. 1926	(R71A x R74) (R75 x 38-11)	6ABC
Ill. 1928	(R75 x 38-11) (R98 x R105)	4ABC, 6ABC, 10ABC
Ill. 1935	(C103 x R101) (R75 x 38-11)	10ABC
Ill. 1936	(Hy2 x WF9) (M14 x B14)	2ABC

(Table is continued on next page)

Table 15. — Continued

Hybrid	Pedigree	Table No.
Ill. 1944	(R71 x R98) (R130 x R153)	6ABC
Ill. 1948	(R105 x R151) (R153 x R154)	10ABC
Ill. 1952	(M14 x B14) (A545 x W64A)	2ABC
Ill. 1955	(M14 x A297) (B14 x W64A)	2ABC
Ill. 1957	(M14 x A545) (B14 x W64A)	2ABC
Ill. 1958	(M14 x Oh26A) (B14 x A545)	2ABC
Ill. 1959 (Ind. 6225)	(M14 x W64A) (B14 x A297)	2ABC
Ill. 1960	(M14 x W64A) (B14 x A545)	2ABC
Ill. 1961	(B14 x A545) (A239 x W64A)	2ABC
Ill. 1962	(B14 x A545) (A297 x W64A)	2ABC
Ill. 1964	(R138 x R143) (R144 x WF9)	10C
Ill. 1966	(R163 x R165) (WF9 x B14)	4ABC
Ill. 1968	(R163 x R169) (WF9 x B14)	4ABC
Ill. 1969	(R165 x R168) (WF9 x B14)	4ABC
Ill. 1969A	(R165 x WF9) (R168 x B14)	2ABC
Ill. 1971	(R168 x R169) (WF9 x B14)	4ABC
Ill. 1976	(38-11 x Oh41) (Oh7 x Cl.21E)	6ABC
Ill. 1978	(C103 x 38-11) (WF9 x Oh7A)	6ABC
Ill. 1981	(WF9 x 38-11) (Oh7 x Cl.21E)	6ABC
Ill. 1983	(Hy2 x B14) (WF9 x 38-11)	6ABC
Ill. 1984	(Hy2 x WF9) (Oh29 x Oh41)	6ABC
Ill. 1987	(C103 x B10) (Hy2 x WF9)	6ABC
Ill. 1989	(Hy2 x WF9) (M14 x Oh29)	6ABC
Ill. 1992	(C103 x B14) (WF9 x Oh7A)	6ABC
Ill. 1994	(C103 x WF9) (Oh29 x Oh41)	6ABC
Ill. 1996	(C103 x B14) (Hy2 x Oh7)	4C, 6ABC, 10C
Ill. 3009	(B14 x B21) (A297 x W64A)	2ABC
Ill. 3010	(C103 x N24) (WF9 x B14)	4ABC
Ill. 3011A	(C103 x B14) (WF9 x Oh43)	4C, 6C
Ill. 3015B	(WF9 x N24) (B14 x B37)	4BC
Ill. 3016	(WF9 x B14) (B37 x Oh43)	5C
Ill. 3017	(WF9 x B14) (B37 x Oh45)	4ABC
Ill. 3020	(WF9 x B14) (N6 x Oh43)	4ABC
Ill. 3021	(WF9 x B14) (N6 x Oh45)	4ABC
Ill. 3022	(WF9 x B14) (N22A x Oh43)	4ABC
Ill. 3023A	(WF9 x B14) (N24 x Oh43)	4ABC
Ill. 3023B	(WF9 x N24) (B14 x Oh43)	4BC
Ill. 3026	(WF9 x B14) (N610 x Oh45)	4ABC
Ill. 3029	(WF9 x B14) (Oh43 x Oh45)	4ABC
Ill. 3030	(WF9 x B14) (Oh43 x Oh422)	4ABC
Ill. 3032	(WF9 x B38) (Oh28 x Oh43)	4ABC
Ill. 3039	(B37 x B38) (Oh28 x Oh43)	4ABC
Ill. 3042	(WF9 x B14) (B40 x Oh45)	4ABC
Ill. 3043	(R71 x R109B) (WF9 x B14)	2ABC, 4ABC
Ill. 3044A	(R109B x B14) (R113 x WF9)	4C
Ill. 3045A	(R109B x WF9) (R168 x B14)	4C
Ill. 3046	(R113 x R168) (WF9 x B14)	2ABC
Ill. 3049	(Hy2 x WF9) (R71 x R109B)	4C, 5C, 6ABC, 9C, 10C
Ill. 3055	(R109B x R16B) (WF9 x 38-11)	6ABC
Ill. 3074	(R71 x R168) (R105 x R163)	6ABC
Ill. 3075	(Hy2 x WF9) (R95 x R101)	6ABC
Ill. 3080	(Hy2 x WF9) (R101 x Oh451)	6ABC
Ill. 3092	(Hy2 x WF9) (B38 x K720)	6ABC
Ill. 3093	(Hy2 x WF9) (B38 x N25)	6ABC
Ill. 3102	(R101 x Oh41) (WF9 x 38-11)	6C

(Table is continued on next page)

Table 15. — Continued

Hybrid	Pedigree	Table No.
Ill. 3104	(R109B x N25) (WF9 x 38-11)	6ABC
Ill. 3107	(R154 x B38) (WF9 x 38-11)	6ABC
Ill. 3115	(R127 x N35) (WF9 x 38-11)	6ABC
Ill. 3117	(R127 x R154) (WF9 x 38-11)	6ABC
Ill. 3119	(Hy2 x WF9) (R154 x B38)	6ABC
Ill. 3121	(Hy2 x WF9) (R127 x R154)	6ABC
Ill. 3124	(Hy2 x WF9) (R71 x R168)	6ABC
Ill. 3126	(R101 x Mo3) (38-11 x K201)	10ABC
Ill. 3129	(R101 x Mo8) (38-11 x K201)	10ABC
Ill. 3131	(R129 x Mo3) (38-11 x K201)	10ABC
Ill. 3133	(R127 x Mo3) (38-11 x K201)	10ABC
Ill. 3135	(R71A x Mo3) (38-11 x K201)	10ABC
Ill. 3136	(R74 x R101) (38-11 x K201)	10ABC
Ill. 3140	(38-11 x K201) (Ky126 x Cl.21E)	10ABC
Ill. 3145	(R129 x Mo9150) (38-11 x K201)	10ABC
Ill. 3147	(R118 x R129) (38-11 x K201)	10ABC
Ill. 3149	(R74 x R129) (38-11 x K201)	10ABC
Ill. 3151	(WF9 x 38-11) (B14 x Oh41)	6ABC
Ill. 3152	(M14 x WF9) (B14 x Oh43)	2ABC
Ill. 3152A	(M14 x B14) (WF9 x Oh43)	2C
Ill. 3152B	(M14 x Oh43) (WF9 x B14)	2C
Ill. 3152A1	(M14 x B14) (Oh43 x W64A)	2C
Ill. 3152B1	(M14 x Oh43) (B14 x W64A)	2C
Ill. 3152-1	(M14 x W64A) (B14 x Oh43)	2C
Ill. 3154	(R132 x R134) (K201C x Cl.21E)	10C
Ill. 3157	(R132 x R135) (R134 x R136)	10C
Ill. 3160	(WF9 x Oh7) (B14 x Oh43)	4ABC
Ill. 3167B	(WF9 x B37) (A545 x Oh43)	2BC
Ill. 3169B	(WF9 x Oh43) (B37 x Oh28)	2BC
Ill. 3173	(B14 x Oh43) (A545 x N24)	2BC
Ill. 3174	(B37 x Oh28) (A297 x Oh43)	2BC
Ill. 3176B	(B37 x Oh43) (A545 x Oh28)	2BC
Ill. 3179	(R101 x R105) (R151 x Cl.42A)	2C
Ill. 3182A	(R105 x WF9) (R151 x R154)	4C, 6C
Ill. 3182B	(R105 x R154) (R151 x WF9)	4C, 6C
Ill. 3183	(R105 x R153) (R154 x WF9)	6BC
Ill. 3183A	(R105 x R154) (R153 x WF9)	4C, 6C
Ill. 3184A	(R105 x WF9) (R154 x Cl.42A)	4C, 6C
Ill. 3186	(R151 x Cl.42A) (R154 x WF9)	6BC
Ill. 3190	(C103 x K201) (Ky126 x Oh7B)	10BC
Ill. 3192	(C103 x Oh7B) (Ky126 x N82481)	10BC
Ill. 3192A	(C103 x Ky126) (N82481 x Oh7B)	10BC
Ill. 3193	(38-11 x K712) (K201 x Oh7B)	10BC
Ill. 3197B	(K201 x Cl.21E) (K712 x Oh7B)	10BC
Ill. 3198A	(K201 x Ky126) (N82481 x Oh7B)	10BC
Ill. 3204A	(C103 x K712) (K201 x Ky126)	10BC
Ill. 3206	(C103 x K712) (K201 x Cl.21E)	10BC
Ill. 3210	(C103 x K712) (Ky126 x Cl.21E)	10BC
Ill. 3214	(K201 x Ky126) (K712 x Oh7B)	10BC
Ill. 3217	(Hy2 x WF9) (R109B x H60)	6C
Ill. 3218	(Hy2 x WF9) (H51 x H60)	6C
Ill. 3219	(Hy2 x WF9) (H51 x 187-2-13657-6)	6C
Ill. 3220	(Hy2 x WF9) (H54 x H60)	6C
Ill. 3221	(Hy2 x WF9) (H54 x 187-2-13657-6)	6C
Ill. 3222	(Hy2 x WF9) (H60 x K758)	6C

(Table is continued on next page)

Table 15. — Continued

Hybrid	Pedigree	Table No.
Ill. 3223	(Hy2 x WF9) (H60 x Cl.30)	6C
Ill. 3224	(Hy2 x WF9) (H60 x Cl.38B)	6C
Ill. 3225	(Hy2 x WF9) (H60 x 187-2-13657-6)	6C
Ill. 3226	(Hy2 x H60) (WF9 x 38-11)	6C
Ill. 3227	(Hy2 x K757) (WF9 x 38-11)	6C
Ill. 3228	(R71 x H60) (WF9 x 38-11)	6C
Ill. 3229	(R109B x H60) (WF9 x 38-11)	6C
Ill. 3230	(WF9 x 38-11) (H53 x H60)	6C
Ill. 3231	(WF9 x 38-11) (H53 x K757)	6C
Ill. 3232	(WF9 x 38-11) (H60 x K757)	6C
Ill. 3233	(WF9 x 38-11) (H60 x Cl.30)	6C
Ill. 3234	(WF9 x 38-11) (H60 x Cl.42A)	6C
Ill. 3235	(WF9 x 38-11) (K757 x Cl.30)	6C
Ill. 3236	(R101 x WF9) (R105 x Cl.42A)	6C
Ill. 3237	(R101 x WF9) (R151 x R154)	6C
Ill. 3237A	(R101 x R154) (R151 x WF9)	6C
Ill. 3238	(R101 x WF9) (R151 x Cl.42A)	6C
Ill. 3239	(R101 x WF9) (R154 x Cl.42A)	6C
Ill. 3240	(R105 x WF9) (R151 x Cl.42A)	6C
Ill. 3240A	(R105 x Cl.42A) (R151 x WF9)	6C
Ill. 3241	(R105 x R154) (R130 x WF9)	6C
Ill. 3242	(R101 x R105) (R151 x WF9)	6C
Ill. 3244	(R105 x R153) (R151 x WF9)	6C
Ill. 3246	(R105 x R130) (R153 x WF9)	6C
Ill. 3247	(R130 x R154) (R153 x WF9)	6C
Ill. 3248	(R151 x R154) (R153 x WF9)	6C
Ill. 3249	(R153 x WF9) (R154 x Cl.42A)	6C
Ill. 3250	(K712 x N82481) (Ky126 x Oh41)	10C
Ill. 3251	(38-11 x K201) (K711 x Ky126)	10C
Ill. 3252	(38-11 x K201) (K711 x Cl.21E)	10C
Ill. 3253	(R71 x R74) (R109B x R168)	6C
Ill. 3254	(R71 x R112) (R74 x R109B)	6C
Ill. 3255	(R71 x R112) (R109B x R168)	6C
Ill. 3256	(R74 x R96B) (R112 x R168)	6C
Ill. 3257	(R74 x R109B) (R110 x R112)	6C
Ill. 3258	(R74 x R109B) (R112 x R114)	6C
Ill. 3259	(R74 x R109B) (R112 x R168)	6C
Ill. 3259A	(R74 x R112) (R109B x R168)	6C
Ill. 3259B	(R74 x R168) (R109B x R112)	6C
Ill. 3260	(R74 x R112) (R109B x R115)	6C
Ill. 3260A	(R74 x R115) (R109B x R112)	6C
Ill. 3264	(R109B x R168) (R112 x R114)	6C
Ill. 3265	(R71 x R109B) (WF9 x Oh43)	2C
Ill. 3266	(R74 x R109B) (WF9 x Oh43)	2C
Ill. 3267	(R74 x R110) (WF9 x Oh43)	2C
Ill. 3268	(R74 x R112) (WF9 x Oh43)	2C
Ill. 3269	(R74 x R114) (WF9 x Oh43)	2C
Ill. 3270	(R74 x R168) (WF9 x Oh43)	2C
Ill. 3271	(R96B x R112) (WF9 x Oh43)	2C
Ill. 3272	(R109B x R112) (WF9 x Oh43)	2C
Ill. 3273	(R109B x R114) (WF9 x Oh43)	2C
Ill. 3274	(R112 x R168) (WF9 x Oh43)	2C
Ill. 3275	(R114 x R168) (WF9 x Oh43)	2C
Ill. 3276	(R71 x R109B) (38-11 x K4)	6C
Ill. 3277	(R74 x R109B) (38-11 x K4)	6C

(Table is continued on next page)

Table 15. — Continued

Hybrid	Pedigree	Table No.
Ill. 3278	(R74 x R110) (38-11 x K4)	6C
Ill. 3279	(R74 x R112) (38-11 x K4)	6C
Ill. 3280	(R74 x R114) (38-11 x K4)	6C
Ill. 3281	(R74 x R168) (38-11 x K4)	6C
Ill. 3282	(R96B x R112) (38-11 x K4)	6C
Ill. 3283	(R109B x R112) (38-11 x K4)	6C
Ill. 3284	(R109B x R114) (38-11 x K4)	6C
Ill. 3285	(R112 x R168) (38-11 x K4)	6C
Ill. 3287	(C103 x Oh43) (WF9 x Oh51A)	2BC
Ill. 3291	(P8 x WF9) (B14 x Oh43)	4BC
Ill. 3294	(C103 x Hy2) (P8 x WF9)	4BC
Ill. 3300	(M14 x Oh43) (R113 x B14)	2C
Ill. 3300A	(M14 x R113) (B14 x Oh43)	2C
Ill. 3301	(M14 x Oh43) (R168 x B14)	2C
Ill. 3302	(M14 x B14) (R172 x WF9)	2C
Ill. 3302A1	(M14 x W64A) (R172 x B14)	2C
Ill. 3303	(M14 x Oh43) (R172 x B14)	2C
Ill. 3304	(M14 x B37) (WF9 x Oh43)	2C
Ill. 3305	(M14 x A295) (WF9 x Oh43)	2C
Ill. 3306	(M14 x Oh43) (L12 x B14)	2C
Ill. 3307	(R113 x B14) (R172 x WF9)	2C
Ill. 3308	(R113 x Oh43) (L12 x B14)	2C
Ill. 3309	(R113 x B14) (WF9 x Oh43)	2C
Ill. 3309-1	(R113 x B14) (Oh43 x W64A)	2C
Ill. 3310	(R165 x B14) (WF9 x Oh43)	2C
Ill. 3311	(R168 x B14) (WF9 x Oh43)	2C
Ill. 3312	(R172 x B14) (WF9 x Oh43)	2C
Ill. 3312-1	(R172 x B14) (Oh43 x W64A)	2C
Ill. 3313	(L12 x B14) (Oh43 x W64A)	2C
Ill. 3314	(Hy2 x R109B) (R168 x B14)	4C
Ill. 3315	(Hy2 x R109B) (WF9 x B14)	4C
Ill. 3315A	(Hy2 x WF9) (R109B x B14)	4C
Ill. 3316	(Hy2 x WF9) (R113 x B14)	4C
Ill. 3317	(Hy2 x WF9) (R165 x B14)	4C
Ill. 3318	(Hy2 x WF9) (R168 x B14)	4C
Ill. 3318A	(Hy2 x R168) (WF9 x B14)	4C
Ill. 3319	(Hy2 x WF9) (R172 x B14)	4C
Ill. 3320	(R109B x R113) (R168 x B14)	4C
Ill. 3321	(R109B x R165) (R168 x B14)	4C
Ill. 3322	(R109B x Oh28) (R168 x B14)	4C
Ill. 3323	(R109B x R172) (WF9 x B14)	4C
Ill. 3323A	(R109B x WF9) (R172 x B14)	4C
Ill. 3325	(R109B x WF9) (B14 x Oh28)	4C
Ill. 3325A	(R109B x Oh28) (WF9 x B14)	4C
Ill. 3326	(R168 x B14) (WF9 x Oh28)	4C
Ill. 3326A	(R168 x Oh28) (WF9 x B14)	4C
Ill. 3328	(Hy2 x R129) (R71 x R74)	6C
Ill. 3329	(Hy2 x WF9) (R71 x R74)	6C
Ill. 3330	(Hy2 x 38-11) (R71 x R74)	6C
Ill. 3331	(Hy2 x R129) (R71 x WF9)	6C
Ill. 3332	(Hy2 x R74) (R127 x WF9)	6C
Ill. 3332A	(Hy2 x WF9) (R74 x R127)	6C
Ill. 3333	(Hy2 x R129) (R74 x WF9)	6C
Ill. 3334	(Hy2 x R154) (R74 x WF9)	6C
Ill. 3335	(C103 x R113) (Hy2 x 38-11)	10C

(Table is continued on next page)

Table 15. — Continued

Hybrid	Pedigree	Table No.
Ill. 3336	(C103 x R153) (Hy2 x R154)	10C
Ill. 3337	(C103 x Hy2) (R154 x 38-11)	10C
Ill. 3337A	(C103 x R154) (Hy2 x 38-11)	10C
Ill. 3337B	(C103 x 38-11) (Hy2 x R154)	10C
Ill. 3338	(C103 x R154) (Hy2 x R168)	10C
Ill. 3338A	(C103 x R168) (Hy2 x R154)	10C
Ill. 3339	(C103 x Hy2) (R168 x 38-11)	10C
Ill. 3339A	(C103 x R168) (Hy2 x 38-11)	10C
Ill. 3339B	(C103 x 38-11) (Hy2 x R168)	10C
Ill. 3340	(C103 x R159) (Hy2 x 38-11)	10C
Ill. 3341	(C103 x R154) (R168 x 38-11)	10C
Ill. 3341A	(C103 x R168) (R154 x 38-11)	10C
Ill. 3342	(Hy2 x R168) (R154 x 38-11)	6C
Ill. 3343	(R71 x R74) (H49 x H55)	6C
Ill. 3344	(R71 x R105) (H49 x H55)	6C
Ill. 3345	(R71 x R109B) (H49 x H55)	4C, 6C
Ill. 3346	(R71 x R168) (H49 x H55)	6C
Ill. 3347	(R74 x R101) (H49 x H55)	4C, 6C
Ill. 3348	(R74 x R109B) (H49 x H55)	4C, 6C
Ill. 3349	(R74 x R168) (H49 x H55)	6C
Ill. 3350	(R101 x Oh41) (H49 x H55)	6C
Ill. 3351	(R109B x R168) (H49 x H55)	6C
Ill. 3353	(R71 x R74) (H49 x H51)	6C
Ill. 3354	(R71 x R105) (H49 x H51)	6C
Ill. 3355	(R71 x R109B) (H49 x H51)	6C, 10C
Ill. 3356	(R71 x R168) (H49 x H51)	6C
Ill. 3357	(R74 x R101) (H49 x H51)	6C
Ill. 3358	(R74 x R109B) (H49 x H51)	6C
Ill. 3359	(R74 x R168) (H49 x H51)	6C
Ill. 3360	(R101 x Oh41) (H49 x H51)	6C, 10C
Ill. 3361	(R109B x R168) (H49 x H51)	6C
Ill. 3362	(Oh7 x Cl.42A) (H49 x H51)	6C, 10C
Ill. 3363	(C103 x B14) (R109B x WF9)	6C
Ill. 3364	(R74 x R101) (K201 x Cl.21E)	6C
Ill. 3365	(Hy2 x R71) (WF9 x 38-11)	6C
Ill. 3366	(Hy2 x R109B) (WF9 x 38-11)	6C
Ill. 3367	(R74 x WF9) (Oh7 x Cl.21E)	6C
Ill. 3368	(Hy2 x R71) (WF9 x B14)	6C
Ill. 3369	(C103 x B14) (R71 x WF9)	6C
Ill. 3370	(C103 x B14) (R74 x WF9)	6C
Ill. 3371	(C103 x B14) (R172 x WF9)	6C
Ill. 3372	(C103 x Cl.7) (R74 x WF9)	6C
Ill. 3373	(C103 x WF9) (R101 x Oh41)	6C
Ill. 3374	(R101 x Oh41) (WF9 x B14)	6C
Ill. 3375	(C103 x WF9) (Hy2 x Cl.42A)	6C
Ill. 3376	(Hy2 x Cl.42A) (WF9 x B14)	6C
Ill. 3377	(Hy2 x Cl.42A) (WF9 x N6)	6C
Ill. 3378	(Hy2 x Cl.42A) (WF9 x W64A)	6C
Ill. 3379	(WF9 x W64A) (Oh43 x Oh45R)	2C
Ill. 3380	(Hy2 x WF9) (R172 x Oh43)	2C
Ill. 3381	(R71 x WF9) (B14 x Oh43)	2C
Ill. 3382	(R109B x WF9) (B14 x Oh43)	2C
Ill. 3383	(M14 x WF9) (R172 x Oh43)	2C
Ill. 3384	(Hy2 x Oh7) (WF9 x Oh41)	6C
Ill. 2247W	(R144 x R145) (R146 x R148)	2ABC

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Table 15. — Concluded

Hybrid	Pedigree	Table No.
Ill. 2249W	(R147 x R148) (H21 x 33-16)	4BC
Ill. 6001	(R78) (38-11 x K4)	14D
Ill. 6021	(R75 x R76) (R84 x K4)	2BC, 4BC, 6BC, 9C, 10C, 14ABCDE
Ill. 6052	(R78 x 38-11) (R84 x K4)	2BC, 4BC, 6BC, 9C, 10C, 14ABCDE
Ill. 6062	(R76 x K4) (R78 x R84)	6BC, 14D
Ill. 6109	(R78 x R85) (R92 x R117)	2C, 4C, 6C, 10C, 14D
Ill. 6115	(R83A x R91) (R92 x R118)	2C, 4C, 6C, 10C, 14D
A 102	(Hy2 x Oh7) (128-4A x SS101)	6ABC
A 104	(Hy2 x Oh7) (R101 x 220A)	6C
A 109	(Hy2 x Oh7) (88-4A x 128-4A)	6C
A 110	(Hy2 x Oh7) (88-4A)	6C
Ark. 5614	(C103 x AK-d20) (AK-8 x CI.7)	10C
Iowa 4297 (Ill. 1290)	(M14 x 187-2) (WF9 x I.205)	4ABC, 5C
Iowa 4962	(M14 x WF9) (B37 x B42)	4C
Iowa 4967	(M14 x WF9) (B42 x Oh51A)	2C
Iowa 4989	(WF9 x B14) (B37 x B42)	4BC
Iowa 4991	(WF9 x B14) (B42 x Oh43)	4BC
Iowa 5018	(WF9 x B7) (B14 x CI.31A)	6C
Iowa 5040	(Hy2 x WF9) (B14 x B48)	6C
Iowa 5052	(M14 x WF9) (Oh51A x W182D)	2C
Iowa 5115	(WF9 x B14) (B45 x CI.31A)	6BC
Iowa 5122	(WF9 x 38-11) (B14 x B38)	6C
Kan. 2246W	(H30 x K41) (33-16 x K55)	10C
Kan. 2561W	(H28 x H30) (K55 x Mo1W)	10C
Kan. 4003	(K201R x K711) (K712 x Oh7B)	10BC
Ky. 105	(38-11 x Oh7B) (T8 x CI.21E)	10BC
Ky. 5708	(C103 x CI.21E) (CI.29C x CI.38B)	10BC
Ky. 5712W	(33-16 x CI.64) (K55 x Ky201)	10BC
Mo. 881	(Mo7 x CI.21E) (Oh7B x Oh29)	10C
Mo. 916	(Mo6 x CI.21E) (Oh7B x Oh29)	10C
Mo. 996	(Mo0225 x Mo9689) (T204 x CI.21)	10C
N.C. 5113	(K41 x NC42) (K55 x NC88W)	10C
Ohio M15	(A x W23) (Oh26 x Oh51)	2ABC
Ohio K24	(WF9 x Oh51A) (Oh33 x Oh40B)	2ABC
Tenn. 501W	(K41 x K44) (T111 x T115)	10C
Tenn. 5005	(T218 x T220) (T474 x T490)	10C
Tenn. 7015	(A441-5 x Ky36-11) (T474 x T490)	10C
Tenn. 7018	(ITE701 x Ky36-11) (T474 x T490)	10C
Tenn. 7110W	(T315 x T337) (E184 x K64)	10C
Tenn. 8106W	(T315 x T331) (A14 x T115)	10C
U.S. 13	(Hy2 x L317) (WF9 x 38-11)	4C, 6ABC, 7C, 10ABC, 11B, 14ACDE
U.S. 523W	(K55 x K64) (Ky27 x Ky49)	6C, 10ABC
U.S. 642	(CI.20 x CI.317B) (CI.42A x CI.90A)	10C
U.S. 658	(CI.7 x CI.90A) (CI.20 x CI.38B)	10C
VPI 648	(C103 x Hy3) (WF9 x T8)	10C
VPI 653	(WF9 x T8) (K155 x Oh43)	10C

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