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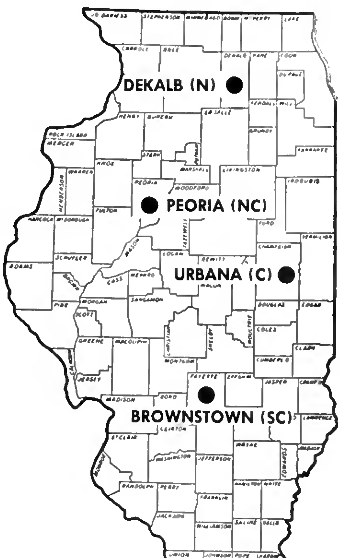
1958 Performance of EXPERIMENTAL CORN HYBRIDS IN ILLINOIS

By R. W. Jugenheimer and K. E. Williams



Location of
test fields

Bulletin 636

UNIVERSITY 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, R. L. Harrison, V. Trifunovic, Earl Wernsman, and P. Bhatnagar for aid in field and laboratory. E. B. Earley supervised the oil and protein determinations.

Urbana, Illinois January, 1959

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PERFORMANCE OF EXPERIMENTAL CORN HYBRIDS IN ILLINOIS, 1958

By R. W. JUGENHEIMER and K. E. WILLIAMS[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 1958. About 750 different hybrids were compared in nearly 6,000 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 senior author, 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 1958 performance of hybrids available to farmers in commercial quantities is reported in Bulletin 635 of this Station.

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MATERIAL TESTED

Double crosses for consideration of seedsmen. More than 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 16. Hybrids that were high yielding and had excellent standability are indicated by table numbers in **boldface** type. Table 16 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. Five sets of three-way crosses differing in maturity were tested in 1958. The three-way crosses in Tables 3, 5, 9, and 14 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 Table 10 were developed by the Illinois Station and tested only in Illinois.

The following individuals are responsible at the present time for collecting seed of inbred lines, making the crosses, and distributing crossed seed of the entries in the cooperative uniform tests: E. C. Rossman (Michigan), N. P. Neal (Wisconsin), and G. H. Stringfield (Ohio) — Table 3; J. H. Lonnquist (Nebraska), R. W. Jugenheimer (Illinois), and G. F. Sprague (Maryland) — Tables 5 and 9; and W. R. Findley (Kansas), F. A. Loeffel (Kentucky), and M. S. Zuber (Missouri) — Table 14.

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.

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. Percentage of oil and protein in the grain was determined on special hybrids.

General information concerning the tests is given in Table 1.

Field plot design. Semi-balanced lattice designs were used to obtain the data reported in Tables 8 and 9. The data in Tables 3, 5, 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 7.

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 hills in area. Six kernels were planted in hills spaced 40 inches apart. Hills were thinned to 4 plants at DeKalb, Peoria, and Champaign, and to 3 plants at Brownstown.

Table 1. — GENERAL INFORMATION: Tests of Illinois Experimental Corn Hybrids, 1958

County[a]	Section of state	Table number	Plants per hill	Date of— Planting	Date of— Harvesting
DeKalb	Northern	2–3	4	May 8	Oct. 9
Peoria	North-Central	4–5	4	May 12	Oct. 21
Champaign	Central	6–7	4	May 13	Oct. 28
Champaign	Central	8–9	4	May 22	Oct. 20
Champaign	Central	10	4	May 21	Oct. 16
Champaign	Central	11	4	May 23	Oct. 29
Champaign	Central	12	4	May 22	Oct. 23
Fayette	South-Central	13–14	3	May 22	Nov. 11

[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.

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.

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 15. 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 more than 400 new double-cross hybrids is shown in Tables 2, 3, 4, 5, 6, 7, 8, 13, and 14. Many of these hybrids were superior to popular combinations now being grown. *Double-cross hybrids that were high yielding and had excellent standability are indicated by heavy type in Table 16.*

Three-way crosses. Data on four sets of three-way crosses are reported in Tables 3, 5, 9, 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

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

excellent performance, extreme uniformity, and attractive appearance. Some of the better hybrids include:

Northern Illinois

Table 3 — (M14×WF9)×A427, (M14×WF9)×R151, (M14×WF9)×R182, (M14×WF9)×MS128, (Oh43×W64A)×W212, (Oh43×W64A)×W220, (Oh43×W64A)×W375R5, (Oh43×W64A)×A570, (Oh43×W64A)×R151, (Oh43×W64A)×R181, (Oh43×W64A)×R182, (Oh43×W64A)×MS116.

North-Central Illinois

Table 5 — (WF9×B14)×R174, (WF9×B14)×R184, (WF9×B14)×B42, (Oh28×Oh43)×R103, (Oh28×Oh43)×R174, (Oh28×Oh43)×B46.

Central Illinois

Table 9 — (Hy×WF9)×R177, (Hy×WF9)×R186, (Hy×WF9)×R188, (Hy×WF9)×H51, (Hy×WF9)×H52, (Hy×WF9)×K805, (Hy×WF9)×Oh7N, (Hy×WF9)×Oh45S, (WF9×38-11)×R177, (WF9×38-11)×H55, (WF9×38-11)×H56, (WF9×38-11)×Oh7N.

South-Central Illinois

Table 14A — (B41×Oh7A)×38-11, (B41×Oh7A)×K763, (B41×Oh7A)×K6-49, (B41×Oh7A)×Ky55-549, (B41×Oh7A)×Ky55-562, (B41×Oh7A)×Va6-224, (B41×Oh7A)×CI.21E, (B41×Oh7A)(CI.21E×CI.42A).

High-oil and high-protein hybrids. Two new corn hybrids, Ill. 6021 (R75 × R76) (R84 × K4) and Ill. 6052 (R78 × 38-11) (R84 × K4), have been developed in the Agronomy Department of the University of Illinois. Foundation single-cross seed of these two hybrids is available to seedsmen interested in producing seed in 1959. Sufficient double-cross seed for farm use will be available for the 1960 growing season. 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 Tables 8, 10, and 15. The 125 three-way crosses reported in Table 10 permit predicting the performance of 7,750 different high-oil and high-protein double-cross hybrids. The actual predictions, however, are not included in this bulletin.

Inbred lines and sister-line crosses. 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 are reported in Table 11. Related versions of the same inbred are grouped together in Table 11A. 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.

Sweet-stalk hybrids. Sugary or sweet-stalk hybrids might have greater feeding value than ordinary hybrids, especially for silage. Agronomic information on a group of sweet-stalk hybrids from Spain is reported in Table 12. Chemical analyses of this material are being made by the Northern Utilization Research Branch of the U. S. Department of Agriculture, Peoria, Illinois.

Table 2. — DOUBLE CROSSES OF ILLINOIS 1277 MATURITY
Tested in Northern Illinois, 1956-1958

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

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height
	A — Three-year averages, 1956-1958						
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*
1	AES 702	**128**	26	77	**84**	**98**	48
2	Ill. 1936	**126**	25	78	**88**	**99**	46
3	AES 601	**125**	24	78	**83**	**98**	44
4	Ill. 1864	**125**	24	78	**84**	**98**	43
5	ISP 2	**125**	27	78	**76**	**97**	47
6	Ill. 1862	**124**	26	**79**	**93**	**100**	42
7	Ill. 1961	**124**	**21**	**79**	**93**	**99**	47
8	Ill. 1863	**123**	26	77	**81**	**99**	43
9	Ill. 1952	**123**	23	**79**	**88**	**98**	46
10	Ill. 1956	**122**	25	77	74	**99**	48
11	Ill. 1958	**122**	**22**	**79**	**86**	**96**	48
12	Ill. 1277	**121**	25	78	73	**99**	46
13	Ill. 1559B	**121**	24	77	**84**	**97**	45
14	Ill. 1957	**121**	24	78	**87**	**98**	44
15	Ill. 1575	**120**	26	77	74	**98**	47
16	Ill. 1955	**120**	**22**	78	**96**	**97**	44
17	Ill. 1960	**120**	24	**79**	**88**	**99**	46
18	Ill. 1281	**119**	24	78	**82**	**99**	43
19	Ill. 1555A	**119**	**22**	78	**85**	**97**	46
20	Ill. 1962	**119**	**22**	78	**93**	**98**	47
21	Ill. 1091A	**118**	25	78	71	**96**	48
22	Ill. 1866	**118**	25	78	70	**98**	43
23	Ill. 1279	**117**	24	78	74	**97**	46
24	Ill. 1959	**117**	24	**79**	**93**	**98**	44
25	Minn. CB4621	**117**	**21**	**79**	**95**	**99**	44
26	AES 510	115	**21**	**79**	**82**	**96**	43
27	Ill. 1953	115	**22**	77	**87**	**99**	41
28	Ill. 2247W	115	26	77	**85**	**96**	48
29	Ill. 1289	114	25	76	**85**	**97**	42
30	Ill. 1557	114	26	77	**87**	**96**	45
31	Minn. CB4603	113	**22**	**79**	**95**	**97**	46
32	AES 610	112	23	**80**	**94**	**98**	**38**
33	Ill. 1560A	112	26	78	**84**	**97**	45
34	Ohio K24	111	23	**79**	**84**	**94**	41
35	Ill. 101	110	24	**79**	66	**92**	45
36	Mich. 53-151	109	**22**	78	**88**	**94**	44
37	Ill. 21	103	26	78	73	85	50
	Average	118	24	78	84	97	45
	B — Two-year averages, 1957-1958						
1	Ill. 3007	**136**	28	**80**	**77**	**96**	54
2	Ill. 3152	**134**	30	**78**	**86**	**100**	44
3	AES 702	**130**	30	76	**78**	**98**	50
4	AES 601	**128**	28	77	**79**	**98**	46
5	Ill. 1936	**128**	29	77	**84**	**98**	46
6	Ill. 3009	**128**	**25**	**78**	**92**	**98**	50
7	Ind. 6225	**128**	**25**	**79**	**90**	**100**	49
8	Ill. 1952	**127**	**26**	**78**	**83**	**98**	46
9	Ill. 1862	**126**	30	**78**	**90**	**100**	42
10	Ill. 1863	**126**	30	76	**74**	**98**	44
11	Ill. 1961	**126**	**24**	**78**	**90**	**99**	48
12	Ill. 1864	**125**	28	77	**78**	**98**	43
13	Ill. 1999	**125**	32	77	**80**	**98**	45
14	Ill. 3008	**124**	30	**78**	**86**	**96**	50
15	ISP 2	**124**	32	76	**68**	**96**	48
16	Ill. 3043	**123**	32	**79**	**92**	**96**	48
17	Ill. 1277	**122**	29	77	62	**99**	46
18	Ill. 1559B	**122**	27	76	**76**	**97**	46
19	Ill. 1957	**122**	28	77	**82**	**98**	45
20	Ill. 1958	**122**	**26**	**78**	**82**	**95**	49

(Table is continued on next page)

Table 2. — Continued

Rank in yield	Entry	Acre yield	Mois- ture in grain	Shell- ing	Erect plants	Stand	Ear height
	B — Two-year average, 1957-1958 — Concluded						
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*
21	Ill. 3046	**122**	28	77	**90**	**96**	52
22	Ill. 1955	**121**	**25**	76	**96**	**96**	45
23	Ill. 1956	**121**	30	75	62	**99**	50
24	Ill. 1091A	**120**	28	77	64	**97**	49
25	Ill. 1279	**120**	28	77	63	**98**	48
26	Ill. 1575	**120**	30	76	62	**98**	48
27	Ill. 1959	**120**	28	**78**	**92**	**98**	45
28	Ill. 1960	**120**	28	**79**	**82**	**99**	46
29	Ill. 3016	**120**	34	76	**91**	**96**	48
30	Ill. 1555A	**119**	**24**	76	**80**	**96**	48
31	Ill. 3044	**119**	29	76	**90**	**98**	50
32	Ill. 3045	**119**	29	**78**	**90**	**96**	47
33	Ill. 3047	**119**	28	**78**	**89**	**93**	46
34	Minn. CB4621	**119**	**24**	**78**	**94**	**98**	44
35	Ill. 1281	**118**	28	77	**80**	**99**	43
36	Ill. 1962	**118**	**26**	**78**	**90**	**96**	48
37	Ill. 3048	**118**	28	**79**	**92**	**94**	48
38	AES 510	116	**24**	76	**75**	**95**	44
39	Ill. 1866	116	28	76	58	**98**	43
40	Ill. 1953	116	**26**	76	**80**	**99**	42
41	Minn. CB4603	116	**25**	**78**	**93**	**96**	46
42	Ill. 2247W	114	30	75	**80**	**95**	50
43	AES 610	112	**26**	**78**	**94**	**98**	**38**
44	Ill. 1289	112	28	75	**77**	**96**	43
45	Ill. 1560A	112	30	**78**	**76**	**96**	46
46	Ill. 1557	111	30	76	**82**	**95**	46
47	Ohio K24	110	**26**	**78**	**80**	**92**	42
48	Mich. 53-151	106	**25**	**78**	**84**	**92**	44
49	Ill. 101	105	28	**78**	55	**90**	46
50	Ohio M15	102	**24**	**78**	**78**	88	48
51	Ill. 21	96	30	77	**72**	78	52
	Average	120	28	77	81	96	46
	C — 1958 results (3 replications)						
1	Ill. 3163	**141**	33	81	66	99	46
2	Ill. 3152	**140**	32	79	74	**100**	47
3	Ill. 3173	**138**	33	82	**87**	**100**	52
4	Ill. 3177	**138**	33	79	44	98	49
5	AES 601	**137**	30	77	62	99	50
6	Ill. 1936	**137**	32	79	72	**100**	48
7	Ill. 3169B	**137**	34	78	**78**	99	46
8	Ill. 3007	**135**	32	80	55	**100**	58
9	Ill. 3171	**135**	36	80	**84**	**100**	49
10	AES 702	**134**	33	77	56	**100**	54
11	Ill. 3167B	**134**	34	77	**76**	97	54
12	Ill. 3152A	**133**	28	78	73	99	46
13	Ill. 1862	**131**	33	80	**81**	**100**	46
14	Ill. 3162	**131**	31	79	60	98	**42**
15	Ill. 3174	**131**	28	78	**84**	99	47
16	Ill. 3176B	**131**	34	77	75	99	52
17	Ill. 2247W	**130**	31	76	61	98	54
18	Ill. 3016	**130**	38	78	**87**	99	52
19	Ill. 3159	**130**	31	78	59	**100**	47
20	Ill. 3169A	**130**	34	78	60	97	47
21	Ill. 1559B	**129**	28	77	54	**100**	48
22	Ill. 1961	**129**	26	79	**80**	**100**	50
23	Ill. 3023B	**129**	35	80	75	99	46
24	Ill. 3287	**129**	33	79	**94**	**100**	47
25	ISP 2	**129**	35	77	53	95	51
26	Ill. 1952	**128**	29	80	69	98	48
27	Ill. 3167A	**128**	37	79	**77**	**100**	53
28	Ill. 1999	127	34	78	62	99	49
29	Ill. 3169C	127	34	78	63	97	51
30	Ind. 6225	127	28	80	**82**	**100**	52

(Table is concluded on next page)

Table 2. — Concluded

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height
	C — 1958 results (3 replications) — Concluded						
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*
31	Ill. 1864	126	32	77	57	**100**	46
32	Minn. 200	126	28	78	**79**	96	47
33	Ill. 1277	125	30	77	31	**100**	50
34	Ill. 1958	125	28	77	66	99	51
35	Ill. 3289	125	38	75	**83**	96	49
36	Ill. 3290	125	36	76	**90**	**100**	48
37	Ill. 1863	124	33	76	49	99	47
38	Ill. 3023A	124	35	79	58	97	47
39	Ill. 3168A	124	37	79	57	98	**43**
40	Ill. 3170	124	32	79	46	**100**	46
41	Minn. 201	124	30	79	75	99	45
42	Ill. 1279	123	30	77	30	**100**	50
43	Ill. 3008	123	34	78	75	98	54
44	Ill. 3009	123	28	79	**86**	98	55
45	Ill. 3172	123	36	80	**84**	99	56
47	Ill. 1866	122	30	76	21	98	47
48	Ill. 1959	122	30	80	**86**	97	47
49	Ill. 3047	122	32	79	**80**	98	50
50	Iowa 5053	122	29	77	71	98	49
51	Ill. 1091A	121	30	77	32	99	53
52	Ill. 1955	121	27	75	**91**	99	46
53	Ill. 1957	121	31	78	64	99	45
54	Ill. 3044	121	33	78	**81**	99	54
55	Ill. 3168	121	38	79	63	**100**	46
56	AES 610	120	29	79	**88**	99	**39**
57	Ill. 1555A	120	26	74	64	98	50
58	Ill. 1956	120	33	75	32	**100**	52
59	Ill. 1962	120	27	78	**83**	96	50
60	Ill. 3002	120	26	78	**82**	**100**	51
61	Ill. 3175	120	38	80	**82**	98	50
62	Ill. 3178	120	29	79	52	98	52
63	Ill. 101	119	30	79	24	**100**	49
64	Ill. 1575	119	32	76	33	99	52
65	Ill. 3046	119	33	78	**82**	99	54
66	Ohio M15	119	25	81	62	**100**	50
67	Minn. CB4621	119	27	78	**88**	**100**	47
68	Ill. 1960	118	30	80	66	**100**	48
69	Ill. 3043	118	36	79	**85**	96	52
70	Iowa 4947	118	'32	77	**86**	94	48
73	Ill. 3045	117	33	78	**80**	99	52
74	Ill. 3048	117	30	79	**83**	96	51
75	Ill. 3164	117	29	78	57	98	50
76	Ill. 3168B	117	39	78	61	99	46
77	Minn. CB4603	117	27	79	**86**	96	50
78	AES 510	116	28	76	51	98	48
79	Ill. 21	114	32	78	49	98	57
80	Ill. 1281	114	30	77	62	99	**43**
81	Ill. 3288	114	34	77	43	99	47
82	Ohio K24	113	28	79	64	92	45
83	Ill. 1557	112	32	79	66	98	49
84	Ill. 1953	111	28	75	63	**100**	**43**
85	Ill. 1560A	110	33	78	51	97	46
86	Ill. 1289	108	30	76	57	93	46
87	Ill. 6052	108	40	75	56	96	62
88	Mich. 53-151	105	26	78	72	92	45
89	Ill. 3176A	97	40	76	53	98	47
90	Ill. 6021	97	40	75	52	**100**	62
46	WF9×Oh43	123	38	78	**92**	90	45
71	M14×WF9	118	29	73	30	95	45
72	R172×WF9	117	28	78	**99**	93	49
	Average	123	32	78	67	98	49

Table 3. — THREE-WAY, SINGLE, AND DOUBLE CROSSES OF ILLINOIS 1277 MATURITY
Tested in Northern Illinois, 1958

(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	Ear height
	A — Inbred lines crossed with (M14×WF9)						
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*
1	Ia55-1473	124	27	77	21	**100**	45
2	Ia55-1487	120	30	77	**96**	**97**	43
3	Ia55-1716	127	33	74	**78**	**100**	49
4	Oh26F	116	27	78	70	**100**	44
5	Oh45S	121	33	74	50	**100**	44
6	W212	126	28	77	47	**99**	46
7	W220	132	30	77	68	**100**	47
8	W375R5	128	28	79	52	**100**	43
9	A427	**137**	31	78	**92**	**100**	45
10	A570	130	29	76	64	**99**	44
11	R151	**140**	33	79	68	**100**	51
12	R180	110	34	78	66	**100**	51
13	R181	122	25	77	47	**98**	46
14	R182	127	32	77	**80**	**98**	47
15	R183	121	32	78	67	**98**	52
16	MS68	103	27	76	26	93	**40**
17	MS116	**140**	25	84	66	**100**	47
18	MS127	119	30	78	**78**	**100**	48
19	MS128	126	30	79	**86**	**99**	46
20	MS129	**135**	31	79	52	**98**	43
	Average	125	30	78	64	99	46
	B — Inbred lines crossed with (Oh43×W64A)						
21	Ia55-1473	113	27	77	48	**98**	**41**
22	Ia55-1487	109	32	78	**99**	**99**	**39**
23	Ia55-1716	125	32	77	**97**	**100**	44
24	Oh26F	107	36	76	**87**	96	**36**
25	Oh45S	116	29	78	**86**	**99**	43
26	W212	129	29	76	**92**	**98**	42
27	W220	125	29	78	**97**	**100**	43
28	W375R5	124	29	79	**92**	**100**	43
29	A427	115	30	77	**98**	**98**	44
30	A570	128	29	77	75	**99**	45
31	R151	**144**	31	79	**88**	**100**	50
32	R180	127	36	85	**87**	**98**	46
33	R181	124	29	76	**92**	**98**	44
34	R182	125	28	78	**98**	**100**	44
35	R183	113	34	79	69	**98**	52
36	MS68	109	27	79	71	**99**	44
37	MS116	130	26	81	74	**99**	47
38	MS127	120	28	80	**91**	**100**	44
39	MS128	116	34	79	**92**	**98**	44
40	MS129	124	34	76	**81**	**98**	47
	Average	121	30	78	86	99	44
	C — Single crosses						
42	M14×WF9	128	29	76	26	**100**	46
41	Oh43×W64A	120	34	77	**82**	**98**	**40**
43	K4×38-11	107	40	76	73	96	60
	Average	118	34	76	60	98	49
	D — Double crosses						
47	Ill. 6052	124	40	83	66	**99**	59
44	Ill. 1277	123	33	78	28	**100**	53
49	U.S. 13	122	34	76	69	**100**	57
48	Ill. 6062	110	36	76	57	**98**	61
45	Ill. 6016	105	36	77	43	**100**	54
46	Ill. 6021	102	39	75	48	**98**	62
	Average	114	36	78	52	99	58
Average of 49 entries		122	31	78	71	99	47

Table 4.—DOUBLE CROSSES OF ILLINOIS 21 MATURITY
Tested in North-Central Illinois, 1956-1958

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

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears
	A — Three-year averages, 1956-1958							
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
1	AES 805	**132**	19	81	80	**97**	49	**1**
2	Ill. 274-1	**125**	17	83	79	**96**	51	**1**
3	Ill. 972A-1	**125**	19	82	76	**98**	51	**3**
4	Ill. 1970	**124**	18	**85**	77	**99**	47	**1**
5	Ill. 1971	**124**	17	**84**	84	**99**	47	**0**
6	Ill. 1332	**123**	18	83	82	**98**	50	**3**
7	Ill. 1575	**123**	18	83	79	**98**	45	4
8	Ill. 1831	**122**	19	82	**87**	**96**	44	**1**
9	Ill. 1919	**122**	19	82	77	**95**	50	**3**
10	Ill. 1921	**122**	20	81	**92**	**95**	48	**1**
11	Ill. 1511	**121**	18	83	74	**97**	51	4
12	Ill. 1966	**121**	18	82	84	**94**	46	**1**
13	Ill. 1968	**121**	17	83	85	**95**	49	**0**
14	Ill. 1570	**120**	19	81	73	**97**	50	4
15	Ill. 1928	**120**	21	80	**87**	**95**	53	**1**
16	Ill. 1277	**119**	18	**84**	84	**96**	45	**1**
17	Ill. 1875	**119**	19	81	79	93	52	7
18	Ill. 1969	**119**	18	83	**93**	**96**	47	**1**
19	AES 704	116	18	81	**97**	93	44	**2**
20	Ill. 1868	116	19	82	**89**	**96**	45	**1**
21	Ill. 21	114	18	83	74	**94**	48	**1**
22	Ill. 1967	114	18	81	**91**	**95**	49	**2**
23	Iowa 4297	114	18	82	80	**99**	45	**2**
24	AES 702	112	18	80	82	92	46	**0**
25	Ill. 1863	112	18	83	**94**	**96**	**39**	**1**
26	Ill. 1555A	111	**15**	81	85	**95**	44	**2**
27	Ill. 1814	110	19	82	**91**	93	42	**1**
28	Ill. 1936	110	18	82	**90**	**94**	44	**1**
29	Ill. 3028	104	18	82	**90**	**96**	**41**	**1**
	Average	118	18	82	84	96	47	2
	B — Two-year averages, 1957-1958							
1	AES 805	**134**	20	80	75	**96**	48	**1**
2	Ill. 3010	**130**	20	80	84	**99**	48	**1**
3	Ill. 3026	**130**	21	80	**89**	**96**	42	**1**
4	Ill. 3042	**130**	22	79	**90**	**93**	48	**1**
5	Ill. 3023A	**128**	18	**82**	**86**	**97**	**40**	**0**
6	Ill. 3027	**128**	20	**82**	82	**99**	43	**2**
7	Ill. 3029	**127**	20	80	**87**	**94**	42	**0**
8	Ill. 274-1	**126**	18	**82**	73	**94**	52	**0**
9	Ill. 1332	**126**	19	**82**	78	**98**	48	**2**
10	Ill. 1970	**126**	20	**84**	68	**98**	46	**1**
11	Ill. 3014	**126**	22	80	74	**97**	50	**1**
12	Ill. 3035	**126**	20	**83**	80	**96**	42	**2**
13	Iowa 4880	**126**	19	80	**92**	**92**	44	**0**
14	Ill. 3022	**125**	20	**82**	**86**	**92**	45	**0**
15	Ill. 3032	**125**	18	**82**	**88**	**97**	42	**0**
16	Ill. 3039	**125**	20	80	**89**	**96**	44	**0**
17	Ill. 3021	**124**	22	80	**92**	**96**	44	**1**
18	Ill. 3160	**124**	20	**82**	**96**	**96**	44	**0**
19	Ill. 1575	**123**	19	**82**	72	**97**	44	**0**
20	Ill. 3017	**123**	20	80	**92**	**97**	44	**0**
21	Ill. 972A-1	**122**	21	80	68	**97**	52	3
22	Ill. 1971	**122**	20	**84**	78	**99**	47	**0**
23	Ill. 3019	**121**	19	80	85	**96**	44	**2**
24	Ill. 3020	**121**	20	80	**88**	**100**	**40**	**1**
25	Ill. 1511	120	20	**82**	68	**96**	50	3

(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
	B — Two-year averages, 1957-1958 — Concluded							
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
26	Ill. 1831	120	21	81	83	**94**	44	**1**
27	Ill. 1921	120	22	80	**91**	**92**	49	**0**
28	Ill. 1928	120	22	79	85	**93**	54	**0**
29	Ill. 1966	120	20	**82**	80	**92**	46	**0**
30	Ill. 1968	120	18	**82**	82	**94**	48	**0**
31	Ill. 3030	120	21	80	**94**	**97**	44	**1**
32	Ill. 3036	120	20	**82**	**88**	**96**	**40**	**1**
33	Ill. 3038	120	18	**83**	**86**	**94**	42	**1**
34	Ill. 3043	120	18	**82**	**94**	**96**	46	**2**
35	Ill. 3015A	119	20	79	**88**	**100**	45	**0**
36	Ill. 21	118	20	**82**	70	**92**	49	**2**
37	Ill. 1277	118	20	**82**	82	**96**	45	**1**
38	Ill. 3011	118	21	80	**88**	**99**	44	**1**
39	Ill. 3016	118	20	81	**94**	**97**	42	**0**
40	Ill. 3025	118	22	80	**88**	**97**	43	**1**
41	Ill. 3028	118	20	**82**	**86**	**96**	**40**	**1**
42	AES 704	117	20	80	**97**	90	43	**2**
43	Ill. 1570	117	20	79	67	**96**	50	3
44	Ill. 1969	117	20	**82**	**92**	**96**	47	**1**
45	Ill. 1919	116	21	81	70	**96**	50	**2**
46	Ill. 3018	116	20	81	**87**	**96**	44	**2**
47	Ill. 3034	116	20	80	82	**95**	**39**	**2**
48	Ill. 3044	116	20	80	**88**	**97**	45	**0**
49	Ill. 1868	114	21	81	**86**	**94**	44	**1**
50	Ill. 1875	114	21	80	73	90	53	**2**
51	Ill. 1967	114	20	80	**88**	**94**	48	**0**
52	Ill. 3047	114	18	81	**88**	**96**	44	**1**
53	Ill. 3124	114	20	**82**	**90**	**94**	46	**0**
54	Ill. 3024	112	20	78	**96**	**94**	42	**2**
55	Ill. 3045	111	18	**82**	**92**	**94**	46	**0**
56	Ill. 1863	110	20	**82**	**94**	**95**	**38**	**0**
57	Ill. 3048	110	18	**82**	**94**	90	46	**0**
58	Iowa 4297	110	20	81	74	**98**	45	**2**
59	AES 702	109	20	79	74	90	45	**0**
60	Ill. 1555A	106	**16**	78	80	**93**	44	**2**
61	Ill. 1936	106	20	81	**88**	90	42	**1**
62	Ill. 3046	106	18	80	**90**	90	46	**0**
63	Ill. 1814	105	21	80	**88**	90	**40**	**0**
	Average	119	20	81	84	95	45	1
	C — 1958 results (3 replications)							
1	AES 805	**147**	18	82	71	**100**	54	2
2	Ill. 3015B	**138**	18	83	**94**	99	50	7
3	Ill. 3023B	**138**	18	84	**87**	99	49	**0**
4	Ill. 3179	**138**	18	85	74	**100**	53	2
5	Ill. 3029	**137**	20	82	**86**	**100**	**45**	**0**
6	Ill. 1511A-1	**136**	18	84	63	98	55	3
7	Ill. 3010	**136**	18	82	**87**	**100**	53	2
8	Ill. 3180	135	19	82	59	**100**	60	**0**
9	Ill. 3294	135	19	83	**81**	**100**	53	4
10	Ill. 3026	134	19	82	**93**	97	48	2
11	Ill. 1831	133	19	83	**86**	**100**	50	2
12	Ill. 3042	133	21	81	**88**	99	51	2
13	Ill. 3160	133	18	84	**99**	98	49	**1**
14	Ill. 3291	133	18	84	**87**	**100**	49	2
15	Ill. 274-1	132	16	84	79	98	56	**1**
16	Ill. 1332	132	17	84	79	98	54	4
17	Ill. 1575	132	18	85	73	**100**	49	**0**
18	Ill. 3014	132	19	82	71	**100**	53	2
19	Ill. 3021	132	19	83	**91**	**100**	48	2
20	Ill. 3039	132	18	81	**90**	99	**47**	**1**
21	Ill. 3187	132	19	84	56	99	62	3
22	Ill. 3293	132	18	83	**80**	99	52	5
23	Iowa 4989	132	17	82	**98**	98	50	**0**
24	Ill. 1921	131	19	82	**90**	**100**	53	**1**
25	Ill. 3017	131	18	82	**92**	99	48	**1**

(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
	C — 1958 results (3 replications) — Concluded							
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
26	Ill. 3022	131	18	83	**89**	97	50	**1**
27	Ill. 3181	131	20	83	53	96	58	**0**
28	Ill. 3184	131	20	84	78	**100**	54	**0**
29	AES 704	130	19	82	**98**	98	48	3
30	Ill. 1919	130	18	84	73	**100**	55	4
31	Ill. 3011	130	18	82	**85**	**100**	48	2
32	Ill. 3023A	130	17	84	**86**	98	**46**	**1**
33	Ill. 3038	130	17	86	**80**	98	**47**	2
34	Ill. 6052	130	18	82	72	**100**	63	3
35	Iowa 4880	130	17	81	**95**	93	49	**0**
36	Ill. 1277	129	18	84	**84**	99	50	2
37	Ill. 1966	129	17	83	**82**	98	51	**1**
38	Ill. 3015A	129	18	82	**89**	99	49	**1**
39	Ill. 3027	129	18	84	**90**	**100**	**46**	3
40	Ill. 3032	129	17	85	**87**	99	**46**	**1**
41	Iowa 4991	129	18	82	**96**	**100**	48	**0**
42	Ill. 1968	128	17	85	**89**	**100**	51	**0**
43	Ill. 1970	128	18	86	73	99	50	2
44	Ill. 3016	128	18	83	**94**	**100**	**47**	**1**
45	Ill. 3030	128	18	82	**93**	98	49	2
46	Ill. 3036	128	18	84	**93**	99	**45**	2
47	Ill. 3028	127	18	84	**86**	99	**46**	2
48	Ill. 3183	127	21	81	**84**	**100**	52	**1**
49	Ill. 3186	127	20	86	67	**100**	54	**1**
50	Ill. 21-4	126	18	83	63	98	52	3
51	Ill. 1967	126	16	82	**89**	**100**	51	**1**
52	Ill. 3025	126	19	81	**87**	99	**46**	2
53	Ill. 3035	126	18	84	76	98	**47**	3
54	Ill. 3188	126	19	84	70	97	58	**1**
55	Ill. 972A-1	125	19	83	64	99	56	6
56	Ill. 1511	125	18	85	61	**100**	54	6
57	Ill. 1868	125	18	84	78	**100**	49	2
58	Ill. 3020	125	18	82	**89**	**100**	**43**	2
59	Ill. 3043	125	17	84	**95**	98	50	4
60	Ill. 3044	125	17	83	**86**	98	50	**1**
61	Ill. 3124	125	18	85	**90**	**100**	50	**0**
62	Ill. 3182	125	19	83	68	99	54	2
63	Ill. 21-3	124	19	81	55	99	58	**1**
64	Ill. 1969	124	18	85	**92**	**100**	51	2
65	Ill. 1971	124	17	85	**85**	**100**	51	**0**
66	Ill. 3292	124	19	83	**84**	99	52	2
67	Ill. 21-2	123	17	81	59	**100**	58	5
68	Ill. 1555A	123	15	82	**85**	**100**	48	3
69	Ill. 1875	123	18	83	65	99	57	4
70	Ill. 1928	123	19	82	**84**	97	59	**0**
71	Ill. 3185	123	20	83	45	**100**	57	2
72	Ill. 1570	122	18	81	67	**100**	53	6
73	Ill. 2249W	122	19	84	74	98	55	11
74	Ill. 3019	122	17	80	**82**	96	**47**	3
75	Iowa 4297	122	17	82	72	98	49	4
76	Ill. 21	121	18	84	60	96	54	3
77	Ill. 1936	121	17	84	**88**	99	**47**	2
78	Ill. 3018	121	17	82	**84**	97	48	3
79	Ill. 1814	120	18	83	**89**	99	**45**	**1**
80	Ill. 3046	120	16	84	**87**	97	52	**1**
81	Ill. 6021	120	18	83	73	**100**	61	7
82	Ill. 1863	119	18	84	**94**	**100**	**43**	**0**
83	Ill. 3047	118	16	84	**92**	99	**46**	2
84	Ill. 3034	118	19	81	**81**	99	**42**	3
85	Ill. 3048	118	16	84	**95**	99	49	**0**
86	Ill. 3024	115	18	80	**96**	95	**45**	4
87	AES 702	114	19	81	77	98	50	**1**
88	Ill. 3045	112	16	84	**88**	99	51	**0**
89	Ill. 3057	110	17	84	**86**	99	49	**0**
90	Nebr. 1781C	110	20	83	72	99	**44**	5
	Average	127	18	83	81	99	51	2

Table 5. — THREE-WAY, SINGLE, AND DOUBLE CROSSES OF ILLINOIS 21 MATURITY

Tested in North-Central Illinois, 1958

(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	Ear height	Dropped ears
	A — Inbred lines crossed with (WF9×B14)							
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
1	R165	129	18	85	72	**100**	48	**0**
2	R174	**133**	20	84	82	**99**	49	**1**
3	R184	128	19	83	**87**	96	52	**2**
4	R185	114	18	80	73	**98**	48	**3**
5	B42	**137**	18	84	**92**	**99**	51	**2**
6	B43	119	19	85	73	**98**	51	**3**
7	B46	118	18	81	**95**	**97**	**46**	**1**
8	Oh7K	120	20	81	72	96	48	**2**
	Average	125	19	83	81	98	49	2
	B — Inbred lines crossed with (Oh28×Oh43)							
9	R103	**141**	18	85	82	**99**	**46**	**2**
10	R165	125	20	86	38	**98**	**46**	**0**
11	R174	**131**	20	80	78	**100**	**46**	**2**
12	R185	126	19	81	69	**100**	50	**1**
13	B42	124	19	85	**87**	**99**	**46**	**1**
14	B43	**139**	21	85	77	**98**	52	**0**
15	B46	**131**	18	82	**86**	**100**	**43**	**1**
16	H49	127	20	83	**92**	**99**	**46**	**1**
17	Oh7K	124	20	82	58	**100**	**46**	**1**
	Average	130	19	83	74	99	47	1
	C — Single crosses							
19	Oh28×Oh43	**134**	17	84	**91**	**99**	**43**	**0**
18	WF9×B14	128	16	83	**99**	95	50	5
	Average	131	16	84	95	97	46	2
	D — Double crosses							
21	AES 702	129	18	84	82	**99**	51	6
20	Ill. 3028	126	17	79	**85**	**97**	**45**	**3**
	Average	128	18	82	84	98	48	4
	Average of 21 entries	128	19	83	80	98	48	2

Table 6. — DOUBLE CROSSES OF ILLINOIS 1570 MATURITY
Tested in Central Illinois (Field A), 1956-1958

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

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
	A — Three-year averages, 1956-1958								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
1	AES 810	**126**	**18**	**84**	**93**	**96**	45	**1**	**4**
2	Ill. 274-1	**124**	**18**	**84**	**90**	**96**	48	**1**	**2**
3	Ill. 1916	**124**	**18**	**84**	**87**	**99**	49	**2**	7
4	Ill. 1919	**124**	**18**	83	83	**96**	46	**2**	6
5	Ill. 1975	**124**	21	80	76	**98**	55	**2**	**3**
6	Ill. 1332	**123**	19	83	**89**	**97**	47	3	**1**
7	Ill. 1511	**123**	20	83	86	**98**	50	6	**4**
8	Ill. 1893	**123**	**18**	81	**90**	94	50	**2**	5
9	Ill. 1921	**123**	19	82	**93**	**98**	45	**2**	**2**
10	AES 805	**122**	19	83	**89**	**97**	46	**1**	5
11	Ill. 1813	**122**	20	83	**96**	94	45	3	**1**
12	Ill. 1909	**122**	**17**	**85**	83	**99**	48	3	3
13	Ill. 972A-1	**121**	**18**	82	**91**	**100**	48	**2**	**2**
14	Ill. 1889	**121**	**18**	81	**87**	**99**	47	**2**	8
15	Ill. 1890	**121**	**18**	**84**	**90**	**96**	**44**	**2**	**3**
16	AES 811W	**120**	19	80	**92**	**98**	**44**	**2**	**2**
17	Ill. 1928	**120**	19	83	**90**	**96**	49	**2**	**4**
18	Ill. 1656	**119**	**18**	83	85	**97**	48	3	**2**
19	Ill. 1918	**118**	19	**84**	**88**	**99**	47	**2**	**1**
20	Ill. 1922	**118**	20	80	**94**	**98**	**44**	**2**	**2**
21	AES 702	**117**	20	81	**89**	**99**	**44**	3	**1**
22	AES 809	**117**	20	83	**94**	95	**40**	**1**	**2**
23	Ill. 1880	**117**	**18**	83	**88**	**98**	46	**2**	**2**
24	Ill. 1927	**116**	20	81	**92**	**97**	45	**2**	**2**
25	Ill. 1973	**116**	19	**84**	**88**	**99**	46	**1**	**1**
26	Ill. 1926	**115**	**17**	81	**93**	**96**	46	3	**2**
27	Ill. 1974	**115**	19	**84**	85	**98**	48	**0**	**4**
28	Ill. 1570	114	19	82	77	**97**	48	**2**	**4**
29	U.S. 13	114	**18**	82	81	94	50	4	**2**
30	AES 808	112	19	83	80	**97**	**42**	3	**2**
31	Ill. 21	110	**18**	82	86	**97**	**43**	**1**	**2**
32	Ill. 1935	106	20	80	**95**	**97**	45	**1**	7
	Average	119	19	82	88	97	46	2	3
	B — Two-year averages, 1957-1958								
1	A 102	**122**	23	81	80	**98**	47	**0**	**6**
2	Ill. 1332-3	**120**	22	81	**86**	**96**	48	**0**	**2**
3	Ill. 1921	**120**	**20**	80	**92**	**98**	46	**0**	**3**
4	Ill. 3104	**120**	**19**	82	82	**98**	44	**1**	**2**
5	Ill. 3107	**119**	**20**	82	**84**	**100**	46	**1**	**5**
6	AES 810	**118**	**19**	82	**91**	**94**	46	**0**	**4**
7	Ill. 3049	**118**	**20**	82	**97**	**97**	44	**0**	**2**
8	Ill. 1852	**117**	22	79	78	**98**	52	**0**	**2**
9	Ill. 1985	**117**	**20**	81	76	**100**	48	**2**	**2**
10	Ill. 3093	**117**	**20**	80	**90**	**99**	46	**2**	**0**
11	AES 805	**116**	**21**	80	**89**	**96**	46	**0**	**6**
12	AES 811W	**116**	22	78	**90**	**98**	44	**1**	**2**
13	Ill. 274-1	**116**	**20**	**84**	**88**	**95**	48	**0**	**2**
14	Ill. 1332	**116**	**20**	82	**90**	**96**	46	**0**	**2**
15	Ill. 1976	**116**	22	79	81	**94**	49	**0**	**2**
16	Ill. 1978	**116**	22	78	76	**98**	50	**0**	**0**
17	Ill. 1981	**116**	**20**	80	**86**	**98**	50	**1**	**4**
18	Ill. 1982	**116**	22	80	75	**96**	51	**2**	**3**
19	Ill. 1984	**116**	22	79	**84**	**98**	46	**2**	**1**
20	Ill. 1991	**116**	22	80	**84**	**95**	47	**2**	**2**
21	Ill. 1995	**116**	22	**86**	76	**96**	48	**0**	**3**
22	Ill. 3115	**116**	**18**	82	**86**	**98**	48	**1**	**3**
23	Ill. 3117	**116**	**20**	**84**	**84**	**98**	45	**0**	**6**
24	A 101	**116**	22	**83**	83	**98**	48	**0**	**4**
25	Ill. 1916	**115**	**20**	**83**	**84**	**98**	50	**0**	7

(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, 1957-1958 — Continued								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
26	Ill. 1975	115	23	78	70	98	52	2	2
27	Ill. 972A-1	114	20	82	90	100	49	1	2
28	Ill. 1813	114	21	81	96	94	46	1	0
29	Ill. 1856	114	27	80	82	98	54	0	6
30	Ill. 1919	114	20	82	80	98	46	2	6
31	Ill. 1928	114	21	82	88	96	50	1	3
32	Ill. 1983	114	20	84	90	99	46	1	2
33	Ill. 3101	114	19	82	78	97	46	1	2
34	Ill. 3105	114	18	83	76	98	48	0	2
35	Ill. 1656-1	113	20	80	84	98	46	2	2
36	Ill. 3077	113	19	80	72	98	48	4	3
37	AES 702	112	22	80	90	99	44	1	0
38	AES 809	112	22	82	92	94	41	0	2
39	Ill. 1332-2	112	20	80	84	94	46	0	2
40	Ill. 1332-4	112	20	81	86	98	46	0	4
41	Ill. 1511	112	22	81	83	98	50	4	2
42	Ill. 1570-1	112	20	80	78	99	46	2	4
43	Ill. 1656	112	20	82	83	96	47	2	2
44	Ill. 1656-2	112	20	82	79	96	47	2	4
45	Ill. 1880	112	20	82	86	98	46	2	3
46	Ill. 1889	112	19	79	84	98	48	2	8
47	Ill. 1890	112	20	82	88	94	44	0	4
48	Ill. 1909	112	18	84	82	98	47	2	3
49	Ill. 1922	112	22	79	94	97	44	0	2
50	Ill. 1996	112	22	80	91	96	47	0	0
51	Ill. 1997	112	22	80	88	92	48	0	2
52	Ill. 3055	112	20	82	87	98	45	0	2
53	Ill. 3076	112	20	81	86	96	46	2	2
54	Ill. 3091	112	22	79	76	98	48	2	1
55	Ill. 3092	112	21	80	90	96	46	2	3
56	Ill. 3112	112	20	80	88	94	46	0	4
57	Ill. 3118	112	20	81	87	100	47	3	4
58	Ind. 6833	112	20	81	82	98	46	4	4
59	Ill. 3075	111	21	83	92	99	47	1	4
60	Ill. 3080	111	22	80	85	98	47	1	2
61	Ill. 3114	111	22	80	78	96	48	2	4
62	Ill. 3119	111	23	81	90	100	46	0	3
63	Ill. 1570-2	110	22	80	77	98	48	0	4
64	Ill. 1893	110	20	80	88	93	51	2	4
65	Ill. 1918	110	20	82	86	100	48	1	2
66	Ill. 1944	110	22	78	95	96	50	0	9
67	Ill. 1945	110	24	82	80	98	52	0	16
68	Ill. 1946	110	23	82	82	99	52	0	6
69	Ill. 1974	110	20	83	81	98	50	0	4
70	Ill. 1986	110	20	81	87	96	44	1	1
71	Ill. 1987	110	21	79	86	98	46	2	2
72	Ill. 1989	110	20	78	92	96	42	1	2
73	Ill. 1994	110	22	78	92	96	46	0	2
74	Ill. 3062	110	19	84	86	98	48	1	4
75	Ill. 3084	110	21	79	89	97	46	0	2
76	Ill. 3086	110	20	82	90	96	44	2	2
77	Ill. 3121	110	19	82	96	96	44	0	3
78	Ill. 3124	110	22	80	96	99	44	0	2
79	Ill. 1926	109	18	80	94	96	47	1	2
80	Ill. 1992	109	23	78	90	94	47	0	0
81	Ill. 3116	109	18	82	88	100	44	2	4
82	Ill. 3151	109	20	80	89	97	48	1	3
83	Ill. 21	108	19	82	84	98	45	2	2
84	Ill. 1570A	108	21	80	78	98	46	2	2
85	Ill. 1927	108	22	80	90	96	44	1	2
86	Ill. 1942	108	23	79	82	96	51	0	14
87	Ill. 1973	108	20	84	86	99	46	0	0
88	Ill. 1980	108	19	80	88	96	48	2	4
89	Ill. 1988	108	22	80	82	96	45	0	0
90	Ill. 1990	108	20	82	90	97	39	0	2

(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, 1957-1958 — Concluded								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
91	Ill. 1993	**108**	**20**	79	**84**	**96**	45	**0**	**2**
92	Ill. 3052	**108**	**19**	82	**84**	**98**	**43**	**2**	**2**
93	Ill. 3056	**108**	**18**	**83**	**88**	**98**	44	**0**	**3**
94	Ill. 3065	**108**	**18**	**84**	81	**98**	48	**0**	**3**
95	Ill. 3083	**108**	**21**	82	**94**	**98**	44	**0**	**2**
96	Ill. 3087	**108**	**20**	**83**	**88**	**98**	**42**	**2**	**1**
97	Ill. 3094	**108**	22	80	**92**	**98**	49	**2**	**4**
98	Ill. 3109	**108**	**19**	**83**	**86**	**96**	44	**0**	**4**
99	Ill. 1851	**107**	22	77	**84**	93	52	**0**	**2**
100	Ill. 3088	**107**	**20**	82	**88**	**94**	44	**0**	**2**
101	Ill. 3100	**107**	**20**	**84**	**96**	**96**	45	**0**	9
102	Ill. 3108	**107**	**20**	**84**	**89**	**94**	47	**0**	**4**
103	AES 808	106	**20**	82	74	**98**	**43**	**2**	**3**
104	Ill. 1857	106	26	76	76	**98**	54	**2**	**4**
105	Ill. 3070	106	22	80	**86**	**97**	48	**0**	**3**
106	Ill. 3082	106	**20**	80	**91**	**95**	44	**2**	**3**
107	Ill. 3110	106	22	82	83	**98**	50	**1**	**5**
108	U.S. 13	106	**20**	80	78	**94**	49	**2**	**2**
109	Ill. 1570	105	**21**	80	74	**96**	46	**0**	**4**
110	Ill. 1947	105	22	82	**84**	**94**	49	**0**	**6**
111	Ill. 3050	105	**20**	80	**86**	**95**	45	**0**	**0**
112	Ill. 3074	105	**21**	82	**94**	**99**	46	**0**	**5**
113	Ill. 3113	105	**18**	82	**90**	**97**	**42**	**0**	**2**
114	Ill. 1660	104	30	77	**88**	**96**	56	**0**	**2**
115	Ill. 1925	104	**20**	82	**92**	**98**	**42**	**0**	**2**
116	Ill. 1935	104	22	78	**92**	**98**	46	**0**	**6**
117	Ill. 1977	104	22	80	80	**97**	47	**1**	**4**
118	Ill. 3054	104	**19**	80	83	**99**	45	**0**	**2**
119	Ill. 3095	104	**20**	81	**84**	**98**	46	**1**	**2**
120	Ill. 3097	104	**19**	80	78	**98**	46	**1**	**6**
121	Ill. 3106	104	22	80	**89**	**97**	44	**0**	**4**
122	Ind. 6623	104	**20**	78	**84**	**98**	48	**1**	**6**
123	Ill. 1943	102	22	79	**90**	**95**	46	**0**	**4**
124	Ill. 1951	102	**20**	82	**84**	**96**	50	**0**	**4**
125	Ill. 3051	102	**20**	81	**92**	92	46	**0**	**2**
126	Ill. 3061	102	**19**	**84**	**85**	**98**	44	**0**	**4**
127	Ill. 3096	102	**21**	79	**92**	**96**	**42**	**0**	**2**
128	Ill. 3111	102	**19**	82	**90**	**96**	45	**0**	**3**
129	Ill. 3125	102	**21**	82	**91**	**98**	44	**0**	**3**
130	Ill. 1939	100	24	78	**92**	**98**	46	**1**	8
131	Ill. 3073	100	22	79	**91**	**98**	45	**0**	**6**
132	Ill. 3120	100	22	82	78	**98**	46	**1**	**4**
133	Ill. 3069	99	**21**	81	**94**	**98**	44	**0**	**4**
134	Ill. 3071	99	22	78	77	**96**	48	**0**	**2**
135	Ill. 1948	98	22	80	**84**	**96**	48	**0**	**6**
136	Ill. 3059	98	**21**	81	**90**	**98**	**42**	**0**	**2**
137	Ill. 3064	98	**21**	82	78	**96**	46	**2**	**4**
138	Ill. 1938	97	26	76	**94**	**96**	47	**0**	**2**
139	Ill. 3057	97	**20**	82	**91**	**96**	**43**	**0**	**3**
140	Ill. 3060	97	22	82	**84**	**97**	44	**0**	**6**
141	Ill. 3058	96	**20**	81	**92**	**97**	44	**1**	**3**
142	Ill. 1940	94	26	78	**91**	**98**	46	**0**	**3**
143	Ill. 2246W	92	**21**	78	81	**97**	51	4	**6**
	Average	109	21	81	86	97	47	1	3

(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 — 1958 results (3 replications)								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
1	Ill. 3192B	135	20	83	81	97	56	2	4
2	Ill. 3190	134	22	83	90	98	54	3	6
3	Ill. 274-1	132	18	86	86	100	48	0	4
4	Ill. 3192A	132	19	83	82	99	58	0	4
5	Ill. 3183	130	20	84	94	99	45	2	6
6	Ill. 3192	130	21	83	76	97	55	0	4
7	Ill. 3189	129	19	85	85	99	52	6	7
8	Ill. 3107	127	19	85	85	100	48	2	9
9	Ill. 3182	127	20	90	85	97	44	2	6
10	Ill. 3186	127	19	85	89	99	49	1	4
11	Ill. 3298	127	21	82	88	99	49	0	3
12	Ill. 1921	126	18	83	98	99	46	0	6
13	Ill. 1984	126	19	81	91	100	46	3	2
14	Ill. 3104	126	18	85	87	99	44	2	3
15	Ill. 3151	126	18	85	93	99	50	2	6
16	Iowa 5115	126	19	84	90	100	47	0	1
17	A 102	125	19	84	79	98	49	1	12
18	Ill. 1919	124	17	85	87	95	47	5	11
19	Ill. 3011	124	18	86	91	98	42	2	5
20	Ill. 1916	123	16	86	86	98	51	1	6
21	Ill. 3117	123	17	86	89	97	47	1	10
22	Ill. 1813	122	20	84	97	89	47	2	0
23	Ill. 1992	122	20	82	90	94	47	0	1
24	Ill. 3049	122	20	83	98	100	42	0	3
25	Ill. 3075	122	17	86	91	99	47	2	6
26	Ill. 3115	122	16	86	93	99	49	2	6
27	AES 809	121	19	85	91	97	37	1	4
28	AES 811W	121	19	81	91	97	42	2	4
29	Ill. 972A-1	121	18	84	88	100	49	2	4
30	Ill. 1332	121	19	86	94	98	48	1	4
31	Ill. 3080	121	19	81	91	98	46	2	1
32	Ill. 3093	121	19	82	91	99	46	3	0
33	A 101	121	18	86	86	98	50	0	6
34	Ill. 1332-3	120	20	84	89	93	46	1	4
35	Ill. 1511	120	20	85	83	97	51	7	2
36	Ill. 1511A-1	120	18	85	78	93	51	1	12
37	Ill. 1922	120	20	83	96	97	42	0	4
38	Ill. 1985	120	20	82	85	100	48	3	2
39	Ill. 1987	120	20	83	89	100	49	4	3
40	Ill. 1989	120	19	81	94	99	42	2	3
41	Ill. 1856	119	20	83	91	99	53	1	10
42	Ill. 1976	119	20	82	88	98	48	0	4
43	Ill. 1978	119	19	83	74	98	55	1	0
44	Ill. 1981	119	18	84	87	97	50	2	5
45	Ill. 3074	119	19	86	97	100	47	0	9
46	Ill. 3076	119	18	84	89	95	45	4	3
47	Ill. 3101	119	19	84	89	99	47	2	4
48	Ill. 3118	119	18	85	89	100	46	6	6
49	Ill. 3119	119	18	85	93	100	48	0	7
50	Ind. 6623	119	19	81	84	98	48	2	12
51	Nebr. 2248	119	21	79	90	97	46	3	1
52	Ill. 1852	118	20	82	85	96	53	1	3
53	Ill. 1889	118	18	82	87	97	52	5	10
54	Ill. 1983	118	18	84	92	98	47	2	1
55	Ill. 1991	118	20	80	87	98	49	3	3
56	Ill. 3055	118	19	84	90	97	47	0	5
57	Ill. 3086	118	18	84	93	98	44	3	1
58	Ill. 3180	118	19	83	78	99	52	0	13
59	AES 805	117	20	83	89	97	46	0	11
60	AES 810	117	18	85	95	91	46	1	7
61	Ill. 1332-4	117	18	84	93	96	47	1	7
62	Ill. 1930	117	21	82	96	97	46	0	3
63	Ill. 1986	117	18	84	95	98	43	2	2
64	Ill. 1996	117	19	83	96	95	47	1	1
65	Ill. 3013	117	20	81	87	98	46	0	2

(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 — 1958 results (3 replications) — Continued								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
66	Ill. 3053	**117**	18	83	93	**98**	43	**2**	5
67	Ill. 3299	**117**	21	83	95	**98**	45	**2**	5
68	Ill. 21	116	18	83	89	**99**	49	3	5
69	Ill. 1332-2	116	18	83	92	93	46	**1**	3
70	Ill. 1570-1	116	18	84	82	**98**	48	3	6
71	Ill. 1893	116	18	83	90	**96**	51	4	6
72	Ill. 1975	116	21	81	84	**99**	53	4	3
73	Ill. 1994	116	19	81	89	**99**	46	**1**	3
74	Ill. 1995	116	19	84	84	**96**	48	**1**	5
75	Ill. 3077	116	18	85	82	**98**	50	7	3
76	Ill. 3109	116	17	85	92	**95**	47	**1**	7
77	Ill. 3143	116	21	85	91	91	57	**1**	7
78	Ill. 3184	116	22	83	89	**98**	49	**1**	10
79	Ill. 3188	116	22	82	82	89	55	**2**	5
80	Ill. 3295	116	20	83	85	**96**	47	5	4
81	Ill. 3297	116	19	84	96	**100**	**41**	**2**	**1**
82	Ill. 1982	115	19	83	80	92	50	4	5
83	Ill. 1993	115	20	80	86	93	47	**0**	3
84	Ill. 3084	115	20	83	96	**97**	46	**1**	3
85	Ill. 3087	115	19	85	92	**99**	42	3	**2**
86	Ill. 3097	115	18	83	81	**100**	47	**2**	10
87	Ill. 3110	115	19	83	84	**98**	51	**2**	8
88	Ill. 3114	115	20	82	90	**94**	48	3	6
89	Ill. 3121	115	17	85	96	**95**	43	**0**	3
90	Ill. 3185	115	20	85	86	**100**	52	**0**	14
91	Ill. 3187	115	19	84	84	**99**	54	7	**2**
92	Ill. 1570-2	114	20	82	83	**98**	47	**1**	9
93	Ill. 1656-1	114	19	82	84	**99**	46	4	**2**
94	Ill. 1660	114	24	80	91	93	57	**0**	4
95	Ill. 1909	114	16	87	90	**99**	47	3	4
96	Ill. 1926	114	17	83	97	**97**	47	**2**	**2**
97	Ill. 1944	114	21	82	96	**96**	51	**0**	15
98	Ill. 1983-1	114	17	85	91	**99**	47	**0**	6
99	Ill. 1997	114	20	82	92	87	49	**1**	4
100	Ill. 3050	114	19	83	91	**98**	46	**1**	**1**
101	Ill. 3054	114	18	83	88	**98**	47	**0**	4
102	Ill. 3112	114	19	84	90	**95**	46	**0**	5
103	AES 702	113	20	82	96	**99**	**41**	**2**	**0**
104	Ill. 1570	113	19	83	88	**94**	46	**1**	5
105	Ill. 3082	113	18	82	**98**	**98**	44	3	3
106	Ill. 3105	113	18	85	83	**97**	48	**0**	4
107	Ill. 3108	113	19	85	91	**99**	50	**1**	4
108	Ill. 3179	113	17	86	90	**95**	49	**2**	10
109	Iowa 5023	113	18	83	91	**98**	45	3	**0**
110	Mo. 971	113	20	79	93	88	50	**0**	11
111	Ill. 1570A	112	20	84	83	**97**	46	4	5
112	Ill. 1928	112	18	84	91	**97**	47	**2**	5
113	Ill. 1977	112	19	82	89	**98**	46	**2**	4
114	Ill. 1990	112	20	84	97	**99**	**37**	**1**	3
115	Ill. 2246W	112	18	85	84	**99**	52	8	11
116	Ill. 3056	112	17	86	96	**98**	44	**0**	6
117	Ill. 3070	112	19	83	79	**96**	49	**0**	5
118	Ill. 3088	112	19	85	93	**96**	42	**1**	3
119	Ill. 3116	112	17	85	94	**99**	44	3	3
120	Ill. 3181	112	20	84	85	**100**	49	**1**	5
121	Ill. 1656-2	111	19	84	84	**99**	48	4	7
122	Ill. 1731B	111	19	83	90	90	47	3	**0**
123	Ill. 1880	111	19	83	91	**98**	47	3	5
124	Ill. 1890	111	19	82	91	92	46	**1**	7
125	Ill. 1945	111	20	84	81	**96**	50	**0**	30
126	Ill. 2249W	111	19	84	92	**96**	48	9	30
127	Ill. 3106	111	18	80	88	**96**	44	**1**	5
128	Ill. 3296	111	19	82	95	**96**	46	4	6
129	Ind. 6833	111	19	84	84	**99**	44	8	9
130	Iowa 5113	111	19	83	89	**95**	44	**0**	**0**

(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 — 1958 results (3 replications) — Concluded								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
131	U.S. 13	111	19	82	79	**95**	50	5	**1**
132	Ill. 1918	110	19	86	90	**100**	49	**2**	**2**
133	Ill. 1946	110	20	83	78	**99**	52	**0**	12
134	Ill. 1974	110	19	85	88	**98**	50	**0**	7
135	Ill. 3062	110	18	86	96	**98**	48	**2**	8
136	Ill. 3073	110	19	81	88	**100**	45	**1**	9
137	Ill. 3091	110	20	80	87	**97**	49	5	**1**
138	Ill. 3094	110	19	83	**99**	**100**	49	3	4
139	Ill. 3100	110	19	84	95	**94**	45	**0**	15
140	Ill. 3125	110	16	86	94	**100**	43	**1**	4
141	Ill. 6021	110	18	83	82	**98**	56	5	**2**
142	Ill. 1942	109	22	82	83	**94**	52	**0**	23
143	Ill. 1951	109	19	86	77	**99**	53	**1**	8
144	Ill. 1988	109	21	82	87	**98**	46	**1**	**1**
145	Ill. 3111	109	18	85	91	**94**	43	**0**	6
146	Ill. 6052	109	18	83	75	90	59	3	3
147	Ill. 1656	108	19	83	86	91	47	4	3
148	Ill. 1973	108	18	85	84	**98**	44	**1**	**1**
149	Ill. 3065	108	17	85	86	**98**	50	**0**	5
150	Ill. 3113	108	18	82	95	**96**	42	**0**	3
151	Ill. 3124	108	19	81	97	**99**	44	**1**	**1**
152	AES 808	107	20	83	72	**97**	**41**	4	4
153	Ill. 1927	107	18	83	**98**	**95**	43	**2**	3
154	Ill. 1935	107	22	81	96	**99**	45	**0**	10
155	Ill. 1947	107	21	81	83	**94**	50	**1**	11
156	Ill. 1980	107	18	82	87	**95**	46	4	8
157	Ill. 3071	107	19	81	87	**97**	45	**1**	5
158	Ill. 3083	107	19	83	96	**96**	45	**1**	**1**
159	Ill. 3092	107	20	81	89	**94**	44	4	5
160	Ill. 3120	107	18	85	84	**98**	46	**2**	5
161	Ill. 1851	106	21	79	77	90	54	**1**	3
162	Ill. 1925	106	16	83	96	**98**	**40**	**1**	3
163	Ill. 3286	106	19	83	92	**96**	48	3	5
164	Ill. 1857	105	23	79	83	**98**	53	4	7
165	Ill. 1939	105	23	82	91	**100**	45	**2**	14
166	Ill. 3061	105	18	86	94	**99**	45	**0**	7
167	Ill. 1943	104	20	80	94	**94**	47	**0**	5
168	Ill. 3057	104	18	85	97	**95**	**41**	**0**	6
169	Ill. 3069	104	18	84	92	**96**	44	**1**	7
170	Ill. 3096	104	18	80	94	**94**	**41**	**0**	**2**
171	Ill. 3099	104	19	81	86	**94**	46	**0**	4
172	Ill. 1938	102	24	78	92	**98**	47	**1**	5
173	Ill. 3051	102	18	84	91	88	44	**1**	**2**
174	Ill. 3052	101	18	84	93	**96**	42	3	4
175	Ill. 3059	101	19	84	97	**98**	**41**	**0**	3
176	Ill. 1940	99	24	82	91	**99**	45	**0**	5
177	Ill. 3060	99	18	84	92	**99**	43	**0**	10
178	Ill. 6016	98	20	85	62	**99**	51	**0**	9
179	Ill. 1948	97	22	82	89	93	49	**0**	10
180	Ill. 3058	97	20	82	93	**99**	**41**	**2**	5
181	Ill. 3064	97	18	85	92	**97**	46	3	6
182	Ill. 3095	96	20	84	90	**99**	45	**2**	3
	Average	114	19	83	89	97	47	2	5

Table 7. — DOUBLE CROSSES OF ILLINOIS 1570 MATURITY Tested in Central Illinois (Field B), 1956-1958

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

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Dropped ears	Smut
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
1	Ill. 1981	**127**	**19**	81	**89**	**98**	49	**1**	**4**
2	Ill. 1976	**125**	21	79	84	**96**	49	**1**	**4**
3	Ill. 1978	**125**	21	80	83	**99**	50	**2**	**1**
4	Ill. 1995	**125**	21	**85**	79	**97**	49	**1**	**4**
5	Ill. 1982	**124**	21	80	81	**96**	50	3	**3**
6	Ill. 1996	**124**	21	81	**93**	**97**	47	**1**	**1**
7	Ill. 1919	**123**	**19**	**82**	85	**97**	46	**2**	**6**
8	Ill. 1984	**123**	21	79	**86**	**98**	47	**1**	**1**
9	Ill. 1991	**123**	21	80	**86**	**96**	47	**2**	**2**
10	Ill. 1332	**122**	**19**	**82**	**90**	**97**	47	**2**	**3**
11	Ill. 1851	**122**	22	78	**88**	94	51	**1**	**5**
12	Ill. 1985	**122**	**20**	**82**	81	**99**	47	**2**	**1**
13	Ill. 1992	**122**	21	79	**92**	**96**	46	**0**	**1**
14	Ill. 1997	**121**	22	81	**89**	94	49	**0**	**2**
15	Ill. 1660	**120**	29	79	**89**	**97**	55	**0**	**3**
16	Ill. 1983	**120**	**18**	**84**	**92**	**99**	46	**2**	**2**
17	Ill. 1570-1	**119**	**20**	81	84	**99**	47	**2**	**3**
18	Ill. 1918	**119**	**20**	**83**	**87**	**99**	47	**2**	**1**
19	Ill. 1944	**119**	21	79	**95**	**97**	51	**0**	9
20	Ill. 1945	**119**	22	**82**	84	**98**	52	**1**	14
21	Ill. 1570A	**118**	**20**	81	84	**99**	46	3	**2**
22	Ill. 1942	**118**	22	80	**86**	**97**	51	**0**	14
23	Ill. 1946	**118**	22	81	84	**99**	53	**0**	8
24	Ill. 1987	**118**	**20**	80	**88**	**98**	47	4	**2**
25	Ill. 1994	**118**	21	79	**93**	**97**	46	**1**	**2**
26	Ill. 1880	**117**	**18**	**83**	**88**	**99**	46	3	**2**
27	Ill. 1947	**117**	21	**82**	**86**	**96**	49	**1**	**6**
28	Ill. 1980	**117**	**18**	81	**91**	**97**	47	3	**3**
29	Ill. 1986	**117**	**19**	**82**	**91**	**96**	43	**1**	**3**
30	Ill. 1951	**116**	**19**	**84**	**86**	**97**	51	**1**	**4**
31	Ill. 1943	**115**	21	80	**92**	**96**	46	**0**	**3**
32	Ill. 1977	**115**	**20**	80	85	**98**	47	**2**	**4**
33	Ill. 1939	**114**	23	79	**94**	**98**	46	**1**	7
34	Ill. 1993	**114**	**19**	80	**88**	**97**	45	**1**	**2**
35	Ill. 1570	113	**20**	81	79	**97**	47	**2**	**3**
36	Ill. 1948	113	22	81	**86**	**97**	48	**0**	7
37	Ill. 1989	113	**19**	80	**93**	**97**	42	**2**	**1**
38	Ill. 1988	112	**20**	81	**86**	**97**	45	**1**	**1**
39	Ill. 1990	112	**19**	**83**	**93**	**98**	**39**	**0**	**1**
40	Ill. 2246W	109	**19**	80	85	**98**	51	5	**5**
41	Ill. 1938	108	25	77	**94**	**97**	47	**0**	**3**
42	Ill. 1940	106	24	80	**93**	**98**	46	**0**	**5**
	Average	118	21	81	88	97	48	1	4

Table 8. — HIGH-OIL DOUBLE CROSSES AND STANDARD
Tested in Central Illinois, 1954-1958

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

Rank in yield	Entry	Acre yield	Oil		Protein		Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut	Dropped ears
	A — Five-year averages, 1954-1958												
		bu.	*perct.*	*lb. per acre*	*perct.*	*lb. per acre*	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
2	Ill. 6052	112	6.27	390	11.42	707	22	..	81	..	..	..	..
3	Ill. 6021	110	6.39	393	11.06	679	20	..	83	..	..	..	..
1	U.S. 13	116	4.77	311	10.24	665	20	..	86	..	..	..	..
	Average	113	5.81	365	10.91	684	21	..	83	..	..	..	..
	B — Two-year averages, 1957-1958												
2	Ill. 6052	126	5.94	418	10.02	710	21	80	73	98	56	4	..
3	Ill. 6062	124	5.49	382	10.70	751	23	79	56	97	56	8	..
4	Ill. 6021	119	6.44	425	10.12	678	21	80	65	96	56	4	..
1	U.S. 13	130	4.39	319	9.22	670	22	80	74	96	53	3	..
	Average	125	5.56	386	10.02	702	22	80	67	97	55	5	..
	C — 1958 results (4 replications)												
2	Ill. 6052	**116**	6.41	416	9.50	617	20	82	**79**	**97**	58	**7**	5
3	Ill. 6115	**115**	5.56	358	10.62	684	19	81	**85**	**98**	56	**12**	**3**
4	Ill. 6111	**112**	6.06	380	10.31	647	20	83	73	**98**	57	14	**2**
5	Ill. 6062	**112**	5.60	351	9.94	623	19	80	58	**97**	57	16	**1**
6	Ill. 6109	**112**	5.15	323	10.31	647	17	82	**84**	**97**	48	**10**	**1**
7	Ill. 6021	107	6.99	419	9.69	581	18	81	70	**96**	58	**7**	6
8	Ill. 6108	106	5.42	322	9.44	560	20	80	76	**96**	54	**9**	**3**
9	Ill. 6106	103	6.70	386	10.06	580	20	80	58	**98**	54	37	**1**
10	Ill. 6112	103	5.83	336	11.69	674	18	81	**82**	**99**	53	25	**2**
11	Ill. 6116	102	5.02	287	10.56	603	18	80	**90**	**96**	52	**11**	**1**
12	Ill. 6107	98	6.64	364	9.75	535	20	83	78	**98**	49	22	**2**
13	Ill. 6114	90	6.74	340	10.00	504	21	78	32	**99**	55	13	**3**
14	Ill. 6113	85	4.58	218	9.69	461	18	83	74	**98**	53	**10**	**2**
15	Ill. 6110	82	7.90	363	9.56	439	23	78	**86**	**96**	**43**	18	**1**
1	U.S. 13	**122**	4.16	284	8.81	602	20	81	**84**	**97**	52	**5**	**2**
	Average	104	5.91	343	10.00	583	19	81	74	97	53	14	2

Table 9. — THREE-WAY CROSSES AND STANDARDS OF ILLINOIS 1570 MATURITY
Tested in Central Illinois, 1958

(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	Ear height	Dropped ears	Smut
	A — Inbred lines crossed with (Hy×WF9)								
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*
1	R92	98	19	79	82	**99**	49	**3**	**2**
2	R177	**133**	20	82	**96**	**96**	**45**	**0**	**0**
3	R186	121	19	81	**89**	**100**	48	**1**	**5**
4	R187	113	20	82	**96**	**99**	49	**2**	9
5	R188	117	21	78	**89**	**95**	50	**2**	**2**
6	38-11	**130**	18	82	82	**98**	55	**1**	**5**
7	B45	122	18	77	85	**99**	51	**2**	**0**
8	H51	122	19	81	**90**	94	51	4	**5**
9	H52	116	19	78	**89**	90	58	4	12
10	L317	112	21	80	76	**97**	56	7	**2**
11	K805	**130**	19	79	**87**	**97**	55	**1**	10
12	K806	110	19	82	74	**96**	55	**2**	**7**
13	Ky36-11	111	24	78	84	91	55	**0**	**5**
14	Mo11225	**138**	19	82	80	**99**	48	**1**	9
15	Oh7N	**131**	20	77	**89**	**98**	50	**1**	**0**
16	Oh45S	**137**	21	79	**94**	**99**	48	**0**	**1**
	Average	121	20	80	86	97	51	2	5
	B — Inbred lines crossed with (WF9×38-11)								
17	Hy	127	19	81	84	88	54	**1**	**7**
18	R92	82	18	80	85	**96**	**46**	**3**	**2**
19	R177	127	19	81	**96**	**99**	47	**1**	10
20	R186	97	17	82	**88**	**98**	**44**	**1**	8
21	R187	97	17	83	**92**	89	**43**	**1**	17
22	R188	104	21	76	**91**	**97**	47	**0**	**4**
23	B45	115	20	76	85	93	51	**1**	**7**
24	H55	122	19	82	**87**	**95**	53	**1**	**4**
25	H56	117	20	82	**88**	**97**	53	**2**	**6**
26	L317	104	20	81	83	**97**	54	**3**	**6**
27	K805	97	20	78	**89**	**98**	47	**0**	10
28	K806	105	19	81	48	**97**	52	**2**	**2**
29	Ky36-11	100	21	77	81	94	51	**1**	**5**
30	Mo11225	121	19	78	83	**98**	48	**1**	12
31	Oh7N	116	20	79	**87**	**99**	49	**3**	**3**
32	Oh45S	112	20	78	**91**	**98**	48	**0**	**7**
	Average	109	19	80	85	96	49	1	7
	C — Standard checks								
33	Hy2×WF9	**135**	20	80	**98**	**99**	49	**1**	**1**
35	U.S. 13	122	20	81	84	**97**	52	**2**	**5**
34	WF9×38-11	121	18	83	**95**	**95**	49	**0**	8
	Average	126	19	81	92	97	50	1	5
	Average of 35 entries	116	20	80	86	96	50	2	6

Table 10. — HIGH-OIL AND HIGH-PROTEIN THREE-WAY, DOUBLE, AND SINGLE CROSSES

Tested in Central Illinois, 1958

(Data in boldface indicate performances better than average of all entries for that characteristic)

Code	Entry	Acre yield	Protein	Oil	Erect plants	Stand	Ears per hill
	A — Inbred lines crossed with (38-11×K4)						
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*no.*
1	R75	**112**	9.50	5.04	**84**	**97**	3.8
2	R76	85	11.25	5.96	71	**97**	**4.0**
3	R78	**111**	10.03	6.90	**84**	**97**	**4.1**
4	R79	**128**	10.75	4.66	69	**100**	**4.0**
5	R80	91	10.28	5.71	**80**	**97**	3.8
6	R81	100	10.04	4.18	47	**100**	3.8
7	R83	**117**	10.34	5.95	72	**100**	**4.2**
8	R83A	91	10.62	4.88	54	88	**3.9**
9	R84	102	9.94	5.78	53	**100**	**4.4**
10	R85	**104**	11.22	5.16	**81**	91	**4.0**
11	R86	**124**	11.28	4.90	74	**97**	3.8
12	R87	**114**	10.60	3.84	59	**100**	**4.2**
13	R88	72	9.68	5.25	49	94	3.2
14	R90	67	11.96	5.46	**84**	91	3.4
15	R91	75	11.40	5.54	**88**	**97**	**3.9**
16	R92	**110**	9.84	5.14	**84**	**100**	**4.1**
17	R93	84	10.32	5.83	**80**	**97**	3.8
18	R117	**107**	10.13	4.51	**84**	88	**4.0**
19	R118	**111**	11.32	5.95	66	**97**	**4.0**
20	R120	**105**	11.43	4.82	**94**	**97**	**3.9**
21	R157	**111**	10.06	4.50	**84**	**100**	**4.1**
22	R158	**118**	11.02	5.12	**88**	**100**	**4.1**
23	M14	103	10.90	4.85	**84**	**100**	**4.0**
24	38-11	70	11.62	5.13	74	**97**	**3.9**
25	A96	95	11.02	5.18	58	**97**	3.8
26	A148	75	10.96	4.63	65	**97**	3.8
27	N6	102	9.90	4.92	**91**	**97**	**3.9**
28	S.D.(H.P.)	84	12.38	4.74	75	**100**	**4.0**
29	Oh45	**116**	10.41	5.14	**97**	**100**	**4.0**
30	Oh51A	90	9.81	5.18	**93**	**97**	3.8
31	M14×B2(2)	95	11.22	4.58	**81**	**97**	3.6
32	M14×Oh51A(3)	83	10.88	5.54	46	**97**	3.5
33	R75×WF9(1B)	**122**	9.75	5.73	**82**	**97**	3.8
34	R75×38-11(1)	83	10.16	5.77	**88**	91	**4.0**
35	R75×N6(1)	**124**	9.47	5.21	**78**	**100**	**4.0**
36	R185 R76×5120B(3)	101	10.32	5.42	**84**	94	**3.9**
37	R180 R76×WF9(1B)	98	10.32	4.69	68	**97**	**3.9**
38	R76×B2(1A)	87	9.98	6.16	**81**	**100**	3.8
39	R76×I.159(3)	101	10.04	4.81	**88**	**100**	**4.0**
40	R77×N6(3)	96	10.66	5.42	**81**	**97**	**3.9**
41	R77×Oh51A(1A)	90	9.62	6.56	75	**97**	3.8
42	5120B×38-11(1B)	**106**	10.56	4.36	72	**100**	**3.9**
43	5120B×B2(4)	97	10.78	4.94	73	91	3.5
44	5120B×Oh45(1)	**119**	9.12	4.21	**94**	**100**	**4.0**
45	WF9×B2(2)	**108**	9.81	4.25	**96**	**97**	**3.9**
46	WF9×I.159(1A)	**124**	9.19	4.48	**91**	**100**	**4.0**
47	WF9×Oh45(2)	**109**	9.82	4.65	**94**	**100**	**4.1**
48	B2×K4(3)	96	10.72	5.38	68	**97**	**4.1**
49	R186 B2×N6(2)	95	10.50	4.68	69	**97**	3.8
50	R193 B2×Oh51A(1)	101	10.88	5.08	72	**100**	3.8
51	B2×Oh51A(2)	97	11.50	4.68	**78**	**100**	**3.9**
52	I.159×K4(2)	**109**	10.62	5.43	**88**	**97**	**3.9**
53	R184 I.159×Oh45(2B)	**110**	10.16	4.66	**88**	94	**4.0**
54	M14×R75(4)	**118**	10.25	4.84	**88**	**100**	**4.0**
55	R75×5120B(3)	**127**	9.64	4.90	**79**	**97**	**3.9**

(Table is continued on next page)

Table 10. — Continued

Code	Entry	Acre yield	Protein	Oil	Erect plants	Stand	Ears per hill
	A — Inbred lines crossed with (38-11×K4) — Continued						
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*no.*
56	R75×38-11(3)	92	10.44	5.60	**94**	**100**	**4.1**
57	R75×N6(4)	**123**	9.22	5.68	**88**	94	3.8
58	R182 R75×Oh51A(1)	**122**	9.34	5.64	**94**	**100**	**4.0**
59	R76×WF9(1A)	102	10.78	5.16	72	**100**	**4.1**
60	R76×38-11(2)	83	11.25	5.42	76	**97**	**4.0**
61	R76×Kys(2)	61	12.22	4.18	62	94	3.1
62	R76×Oh51A(2)	97	10.37	4.64	**93**	**97**	**3.9**
63	R77×38-11(1A)	66	10.78	5.62	75	94	3.2
64	WF9×I.159(3)	**114**	9.84	5.16	**82**	94	**4.0**
65	WF9×Kys(1)	**114**	9.96	4.76	**78**	94	3.6
66	WF9×Kys(4)	103	10.44	5.11	**81**	91	3.4
67	WF9×K4(2)	80	11.25	5.03	**80**	88	3.5
68	38-11×B2(4)	65	10.47	5.40	65	**97**	3.4
69	B2×Kys(2A)	87	10.94	4.91	64	**97**	3.8
70	B2×S.D.HP(2)	81	10.90	4.15	72	**97**	3.5
71	B2×S.D.HP(3)	93	10.22	4.71	**78**	**97**	3.8
72	I.159×Kys(1B)	**109**	10.31	5.41	**81**	**97**	**4.0**
73	I.159×N6(3)	**112**	9.44	4.94	**78**	**100**	**4.1**
74	R188 Kys×N6(1A)	93	9.62	5.43	**90**	**97**	**3.9**
75	Kys×N6(3)	98	10.56	4.56	56	**100**	**4.2**
76	A96×Oh45(1)	99	9.78	4.66	**88**	**100**	**3.9**
77	N6×Oh45(4)	**113**	9.75	5.82	**91**	**100**	**4.1**
78	N6×Oh51A(3)	100	10.03	5.30	75	**100**	**4.0**
79	C103	**118**	9.62	4.30	71	**97**	**3.9**
80	Hy2	**130**	9.34	5.00	**94**	**100**	**3.9**
81	R78	100	9.88	6.90	72	**100**	**4.2**
82	R79	**131**	10.09	4.82	**88**	**100**	**4.1**
83	R80	90	10.22	4.72	75	**100**	**4.0**
84	R81	99	9.38	4.60	61	**97**	3.8
85	R82	**114**	10.90	6.09	69	75	3.8
86	R83	90	10.54	5.18	57	88	3.6
87	L317	95	10.06	4.70	**78**	91	**4.4**
88	K201	**111**	10.72	5.90	**84**	**97**	**4.8**
89	A71	**109**	10.03	4.90	59	**100**	**4.0**
90	Oh84	80	10.28	4.84	62	**100**	**4.0**
91	CI.2	**114**	10.34	5.06	**83**	**97**	**4.4**
92	CI.4-8	90	10.60	4.68	54	88	3.6
93	CI.187-2	**107**	9.62	4.46	**84**	**97**	**4.1**
94	CI.540	**120**	9.75	4.88	73	94	**5.6**
95	C103×Hy2(2B)	**134**	9.06	4.42	**88**	**100**	**4.0**
96	C103×CI.540(1)	**117**	9.91	5.32	**91**	**100**	3.8
97	Hy2×R79(2)	**130**	9.00	4.96	**84**	**100**	**4.0**
98	R196 Hy2×R83(3)	**127**	10.52	5.32	**91**	**100**	**4.1**
99	R195 Hy2×187-2(2)	**114**	9.38	4.98	74	**97**	**3.9**
100	R198 R78×K201(1B)	104	10.12	4.78	**81**	**100**	**3.9**
101	R79×L317(1A)	**111**	9.12	4.78	**84**	**100**	**4.0**
102	R79×CI.4-8(1)	102	9.60	6.11	**91**	94	3.8
103	R197 R80×K201(1A)	**115**	10.72	6.08	59	**100**	**5.0**
104	R80×Oh84(4)	**110**	11.62	5.66	66	**100**	**4.0**
105	R80×CI.540(1B)	**110**	9.84	5.72	**80**	**97**	**4.0**
106	R82×L317(1B)	97	10.56	4.96	72	94	3.6
107	R82×CI.4-8(3)	**109**	10.50	4.47	71	91	3.8
108	R83×CI.540(1)	101	9.75	4.98	53	**100**	**4.1**
109	C103×R78(1)	**110**	10.15	5.12	72	**100**	**4.0**
110	C103×R79(1B)	**124**	10.60	5.48	**78**	**100**	**3.9**
111	C103×L317(1A)	102	9.22	4.51	42	**97**	**3.9**
112	C103×L317(1B)	**110**	8.60	4.26	67	**97**	**3.9**
113	C103×A71(1A)	**112**	10.34	5.10	**81**	**100**	**4.0**
114	Hy2×R79(1A)	**113**	10.75	4.68	**81**	**100**	**4.0**
115	Hy2×R82(1A)	**125**	9.25	4.48	76	**97**	**4.1**
116	R78×R79(1A)	98	10.25	5.63	72	**100**	**4.0**
117	R78×R80(1C)	97	9.72	6.09	53	**100**	**4.0**
118	R78×CI.2(1B)	**107**	10.75	5.28	60	**97**	**4.0**
119	R78×187-2(1)	**128**	10.38	5.04	75	**100**	**4.2**
120	R79×R83(2)	**106**	10.40	5.34	**84**	88	3.8

(Table is concluded on next page)

Table 10. — Concluded

Code	Entry	Acre yield	Protein	Oil	Erect plants	Stand	Ears per hill
	A — Inbred lines crossed with (38-11×K4) — Concluded						
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*no.*
121	R82×L317(1C)	**105**	9.78	4.86	75	**100**	**4.0**
122	R83×L317(3)	99	9.69	4.71	**88**	**100**	**4.0**
123	R83×CI.2(1B)	86	9.68	5.15	75	91	**4.6**
124	R83×CI.540(4)	**120**	9.90	5.26	75	**100**	**4.2**
125	CI.2×187-2(1A)	102	9.88	4.32	**84**	94	**3.9**
	Average	103	10.27	5.10	76	97	3.9
	B — Double crosses						
127	Ill. 1851	**128**	9.34	4.86	**94**	**100**	**4.1**
135	AES 805	**125**	9.50	4.56	**84**	**100**	**4.1**
129	Ill. 6021	**122**	9.64	5.92	**80**	**97**	**4.1**
128	Ill. 6016	**116**	10.53	6.60	75	**100**	**4.2**
134	AES 702	**116**	9.56	4.50	**91**	**100**	**4.0**
136	U.S. 13	**114**	9.00	4.32	**97**	**97**	**3.9**
130	Ill. 6052	**114**	10.53	5.86	74	**97**	**4.1**
131	Ill. 6062	**112**	10.50	5.41	75	**97**	**4.1**
132	Ill. 6075	97	9.56	5.74	**81**	**100**	**4.1**
126	Ill. 1277	96	9.19	4.34	**78**	**97**	3.6
133	Ill. 6084	90	9.97	5.38	48	**97**	**4.0**
	Average	112	9.76	5.23	80	98	4.0
	C — Single crosses						
137	Hy2×WF9	**118**	8.47	3.99	**94**	**100**	**4.0**
140	K4×38-11	**116**	10.87	5.90	**91**	88	3.6
139	WF9×38-11	**114**	9.56	4.88	**100**	**100**	**3.9**
138	M14×WF9	89	10.31	4.49	**97**	**97**	3.8
	Average	109	9.80	4.82	96	96	3.8
	Average of 140 entries	104	10.22	5.10	77	97	3.9

Table 11. — INBRED LINES AND SISTER-LINE CROSSES
Tested in Central Illinois, 1958

(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	Ear height	Dropped ears	Smut	Leaf blight
	A — Inbred lines									
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*	*score*
1	Hy2	35	23	77	**97**	**99**	31	**0**	**0**	2.4
19	HyR	40	20	81	77	**91**	38	**0**	**1**	3.6
2	R138	44	18	82	**85**	**91**	40	**1**	**1**	3.5
3	R158	45	15	81	**85**	**99**	35	**2**	**1**	5.0
4	CI.42A	36	23	78	**88**	**98**	37	**1**	**2**	3.1
5	WF9	49	16	81	**99**	**99**	**27**	**1**	**5**	4.0
6	R75	42	14	78	**99**	**92**	**25**	6	10	3.6
7	38-11	35	16	76	**87**	**88**	40	**1**	**1**	2.5
8	R76	30	20	75	48	**85**	45	6	**2**	3.1
9	CI.38B	17	22	72	**98**	**91**	36	**1**	12	2.6
20	L317	6	16	76	52	**86**	41	**1**	**3**	3.9
10	R118	12	18	70	61	83	44	4	11	3.9
11	Oh41	6	15	67	67	**86**	**26**	**0**	**2**	4.2
12	CI.317B	10	26	50	80	**93**	42	**1**	12	3.2
13	Oh7	51	20	81	**90**	**89**	36	**0**	**6**	2.2
14	Oh7A	36	24	74	69	**95**	39	**0**	**9**	3.0
15	Oh7B	49	19	79	80	**88**	40	**0**	**8**	2.1
16	CI.187-2	43	16	82	**100**	**98**	36	**0**	13	4.4
17	W187R	41	13	81	80	**92**	36	**1**	**1**	5.0
18	R84	22	14	80	73	83	46	**3**	55	3.9
	Average	32	18	76	81	91	37	1	8	3.5
	B — Sister-line crosses									
21	Hy2×R138	61	20	84	**93**	**93**	40	**0**	**0**	3.0
22	Hy2×R158	**123**	20	82	**94**	**98**	45	**0**	**1**	2.0
23	Hy2×CI.42A	92	22	83	**96**	**94**	41	**1**	**1**	1.9
24	R138×R158	**116**	19	84	**92**	**99**	47	**1**	**0**	2.2
26	R158×CI.42A	**125**	21	85	**98**	**92**	49	**0**	**1**	1.5
25	R138×CI.42A	105	23	84	**86**	**96**	47	**0**	**4**	2.2
27	WF9×R75	77	16	82	**99**	**99**	29	**2**	**7**	3.8
28	38-11×R76	66	17	82	**85**	**97**	43	**1**	**3**	2.8
29	38-11×CI.38B	53	20	78	69	80	38	**0**	**1**	2.2
30	R76×CI.38B	80	20	80	**92**	**94**	44	**0**	**1**	2.1
31	R118×Oh41	51	19	74	59	**94**	48	**1**	**3**	3.2
32	R118×CI.317B	50	22	68	66	**98**	56	**3**	11	3.0
33	Oh41×CI.317B	53	18	76	69	**95**	52	**3**	**5**	3.1
34	Oh7×Oh7A	85	19	83	**89**	**92**	44	**0**	**4**	2.8
35	Oh7×Oh7B	74	21	81	**97**	**90**	39	**0**	**3**	2.0
36	Oh7A×Oh7B	83	23	78	**93**	**92**	46	**0**	**4**	2.0
37	187-2×W187R	73	13	83	**88**	**95**	40	**1**	**3**	5.0
38	187-2×R84	81	15	83	**95**	**97**	50	**1**	40	4.5
39	W187R×R84	104	15	82	**87**	**98**	51	**3**	**6**	3.9
	Average	82	19	81	87	94	45	1	8	2.8

Table 12. — SWEET-STALK HYBRIDS AND STANDARDS
Tested in Central Illinois, 1958

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

Code	Entry	Acre yield	Oil		Protein		Mois-ture in grain	Shell-ing	Erect plants	Stand	Ear height	Dropped ears	Smut	Half silk
	A — Sweet-stalk hybrids													
		bu.	*perct.*	*lb. per acre*	*perct.*	*lb. per acre*	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*	*perct.*	*days*
1	CD-17773 (PI.240056)	82	4.13	190	10.12	465	19	80	**78**	71	**44**	**0**	32	69
2	CD-17774 (PI.240057)	97	4.11	223	10.06	546	18	80	**72**	82	**49**	**1**	18	68
3	CD-17775 (PI.240058)	92	5.34	275	10.19	525	23	78	**72**	**84**	**46**	**1**	**11**	74
4	CD-17776 (PI.240066)	78	4.96	217	11.19	489	18	81	**76**	**85**	**43**	**2**	19	66
5	CD-17777 (PI.240067)	93	4.61	240	10.62	553	19	81	53	**94**	**43**	**3**	**12**	68
6	CD-17778 (PI.240070)	**103**	4.69	270	9.81	566	20	80	**85**	**99**	**46**	**0**	**13**	70
7	CD-17779 (PI.240071)	86	4.69	226	10.38	500	18	79	65	**84**	**46**	**0**	23	69
	Average	90	4.65	234	10.34	521	19	80	72	86	45	1	18	69
	B — Standard checks													
8	Ill. 1570	**112**	4.14	260	8.88	557	21	80	**88**	**95**	**49**	**2**	**4**	74
9	Ill. 6021	**108**	6.24	377	10.75	650	19	78	63	**93**	57	9	**9**	75
	Average	110	5.19	318	9.82	604	20	79	76	94	53	6	6	74

Table 13. — DOUBLE CROSSES OF ILLINOIS 1851 MATURITY
Tested in South-Central Illinois, 1956-1958

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

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut
	A — Three-year averages, 1956-1958							
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
1	Ill. 1851	**98**	24	**78**	**87**	**99**	54	**1**
2	Ill. 1539A	**94**	27	**78**	**90**	**98**	54	**2**
3	Ill. 1893	**94**	24	77	**93**	**99**	53	**3**
4	Ill. 1913	**93**	**20**	**83**	**96**	**99**	**50**	**1**
5	AES 805	**92**	23	**78**	**92**	**97**	**49**	**2**
6	Ill. 1349	**91**	26	**81**	**88**	**97**	54	**3**
7	Ill. 1850	**91**	26	76	**88**	**99**	53	**2**
8	Ill. 1935	**91**	**21**	**80**	**91**	**98**	**48**	**3**
9	Ill. 1849	**90**	27	73	**95**	**98**	51	**1**
10	Ill. 1852	**90**	26	74	**85**	95	51	**1**
11	Ill. 1889	**90**	**22**	**78**	**91**	**98**	**48**	**6**
12	Ill. 1918	**90**	24	**79**	**92**	**97**	**48**	**1**
13	Ill. 1928	**90**	24	**78**	**94**	**100**	**50**	**1**
14	Ill. 1945	**90**	25	**80**	**83**	**97**	51	**4**
15	Ill. 1909	**89**	**22**	**80**	**92**	**96**	**48**	**1**
16	Ill. 1919	**89**	**22**	**80**	**86**	**96**	**47**	**4**
17	Ill. 1771	**88**	26	**79**	**86**	95	**50**	**2**
18	Ill. 1856	**88**	26	75	**95**	**97**	51	**2**
19	Ill. 1948	**88**	24	**80**	**89**	**97**	**49**	**2**
20	U.S. 523W	**87**	26	77	75	**98**	**49**	**2**
21	Ill. 200	**86**	24	**79**	79	**96**	53	**2**
22	Ill. 1332	**85**	24	**79**	**93**	**97**	**50**	**2**
23	Ill. 1570	**85**	23	**78**	**91**	**98**	**48**	**1**
24	Ill. 1921	**85**	25	**79**	**89**	**96**	**45**	**3**
25	Ill. 1942	**85**	26	**78**	**87**	**100**	51	12
26	Ill. 1926	**84**	23	77	**93**	**96**	**48**	**1**
27	Ill. 1947	**84**	25	77	**88**	**100**	**49**	**3**
28	Ill. 1946	83	24	**79**	**90**	**96**	54	**3**
29	Ill. 1656	82	24	**79**	**85**	95	**47**	**2**
30	Ill. 1922	82	24	**78**	**96**	**99**	**47**	**2**
31	Ill. 1927	82	24	77	**93**	**98**	**46**	**1**
32	Ill. 1939	80	25	76	**97**	**99**	**48**	**3**
33	Ill. 1943	80	25	77	**85**	**96**	**46**	**1**
34	U.S. 13	80	24	**78**	79	**96**	51	**1**
35	Ill. 1940	79	26	77	**92**	**98**	51	**2**
36	Ill. 1944	79	25	77	**85**	**99**	**49**	**4**
37	Ill. 1951	79	**22**	**80**	**85**	**96**	**49**	**2**
38	Ill. 1938	77	27	74	**93**	**99**	**47**	**4**
39	Ill. 1949	77	25	76	**94**	**98**	**48**	**1**
40	Ill. 1941	67	27	73	**85**	95	**50**	8
	Average	86	24	78	89	97	50	2
	B — Two-year averages, 1957-1958							
1	Ill. 1851	**102**	**28**	**76**	**84**	**99**	53	**2**
2	Ill. 1660	**98**	30	**76**	**76**	**97**	**48**	**0**
3	U.S. 619W	**98**	30	**76**	**80**	**98**	**46**	**2**
4	Ill. 1893	**96**	**28**	**76**	**90**	**98**	52	**4**
5	Ill. 1913	**96**	**24**	**82**	**94**	**98**	**48**	**1**
6	Ill. 1928	**96**	29	**78**	**92**	**100**	50	**0**
7	Ill. 3141	**96**	31	**79**	**79**	**96**	52	**0**
8	Ill. 3129	**95**	**28**	**77**	**86**	**99**	**48**	**5**
9	Ind. 6874	**95**	**28**	**75**	**86**	**99**	49	**2**
10	AES 805	**94**	**26**	**76**	**94**	**97**	**46**	**2**
11	Ill. 1539A	**94**	32	**77**	**90**	**98**	54	**3**
12	Ill. 1889	**94**	**26**	**77**	**90**	**98**	**46**	**7**
13	Ill. 3126	**94**	**27**	**79**	**92**	**98**	**48**	**0**
14	Ill. 3147	**94**	**28**	**78**	**82**	**100**	51	**1**
15	Ill. 1850	**92**	32	74	**85**	**99**	49	**2**

(Table is continued on next page)

Table 13. — Continued

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut
	B — Two-year averages, 1957-1958 — Concluded							
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
16	Ill. 1919	**92**	**26**	**80**	**82**	94	**46**	**4**
17	Ill. 1935	**92**	**25**	**78**	**87**	**98**	**46**	**4**
18	Ill. 1945	**92**	30	**79**	**77**	**96**	**46**	**6**
19	Ill. 3133	**92**	**28**	**80**	**86**	**100**	**48**	**5**
20	Ill. 3136	**92**	**28**	**78**	**96**	**98**	**46**	**1**
21	Ill. 3143	**92**	**28**	**78**	56	**98**	49	**6**
22	Ill. 1349	**91**	30	**80**	**88**	**97**	52	**3**
23	Ill. 1852	**91**	31	70	**82**	94	**48**	**0**
24	Ill. 3149	**91**	**28**	**78**	**94**	94	**46**	**2**
25	Ill. 1849	**90**	32	70	**94**	**98**	**48**	**1**
26	Ill. 1856	**90**	31	72	**96**	**98**	**48**	**1**
27	Ill. 1909	**90**	**26**	**79**	**94**	**95**	**45**	**2**
28	Ill. 1918	**90**	**28**	**78**	**93**	**96**	**48**	**0**
29	Ill. 1942	**90**	30	**76**	**82**	**100**	49	16
30	Ill. 3138	**90**	**28**	**78**	**78**	**98**	52	**2**
31	Ill. 3145	**90**	30	**76**	**92**	**95**	**47**	**4**
32	Ill. 3148	**90**	30	**78**	**90**	**96**	**44**	**6**
33	U.S. 523W	**90**	32	**76**	70	**99**	**46**	**2**
34	Ill. 1771	**89**	30	**78**	**82**	94	**48**	**3**
35	Ill. 1948	**89**	**28**	**79**	**84**	**97**	**48**	**2**
36	Ill. 200	**88**	**28**	**78**	**75**	**95**	49	**3**
37	Ill. 1921	**88**	29	**77**	**86**	**95**	**44**	**4**
38	Ill. 1947	**88**	30	**77**	**83**	**100**	**46**	**4**
39	Ill. 3137	**88**	30	**76**	**83**	**96**	54	**2**
40	Ill. 3140	**88**	32	74	**73**	**100**	53	**4**
41	Ill. 1946	**87**	29	**79**	**86**	94	52	**4**
42	Ill. 3150	**87**	30	**76**	**83**	**96**	**48**	**1**
43	Ill. 1570	**86**	**27**	**76**	**92**	**98**	**46**	**1**
44	Ill. 1880	**86**	**26**	**78**	**90**	**96**	**42**	**2**
45	Ill. 3131	**86**	31	**76**	**86**	**96**	50	**3**
46	Ill. 3135	**86**	31	74	**96**	**98**	49	**0**
47	Mo. 958	**86**	33	72	66	**96**	53	**2**
48	Ill. 3128	**85**	31	**76**	**76**	**96**	54	**2**
49	Ill. 1332	**84**	**28**	**79**	**90**	**96**	**46**	**2**
50	Ill. 1926	**84**	**27**	**75**	**91**	94	**45**	**1**
51	Ill. 1927	**84**	**28**	**77**	**90**	**99**	**43**	**1**
52	Ill. 1939	**84**	**28**	74	**96**	**98**	**47**	**4**
53	Ill. 3139	**84**	30	74	**96**	**100**	**48**	**2**
54	Ill. 3057	**83**	**28**	**80**	**82**	93	**43**	**6**
55	Ill. 1922	**82**	**28**	**77**	**94**	**98**	**46**	**2**
56	Ill. 1943	**82**	29	**76**	**80**	94	**44**	**2**
57	Ill. 1951	**82**	**26**	**80**	**78**	**98**	**46**	**4**
58	Ill. 3127	**82**	31	74	**98**	94	49	**2**
59	Ill. 1940	**80**	30	**76**	**88**	**98**	49	**3**
60	Ill. 3146	**80**	30	71	**89**	**96**	51	**8**
61	U.S. 13	**80**	29	**76**	**74**	**96**	50	**1**
62	Ill. 1944	79	30	**77**	**80**	**98**	**46**	**4**
63	Ind. 6615	79	32	72	**92**	**99**	**48**	**2**
64	Ill. 1656	78	30	**77**	**84**	92	**42**	**3**
65	Ill. 1938	78	32	72	**90**	**98**	**44**	**5**
66	Ill. 1949	76	30	74	**91**	**96**	**46**	**1**
67	Ill. 3059	76	**26**	**79**	**86**	**100**	**42**	**0**
68	Ill. 3058	72	**26**	**77**	**96**	**99**	**46**	**0**
69	Ill. 1941	63	32	70	**78**	93	**48**	11
	Average	88	29	76	86	97	48	3

(Table is continued on next page)

Table 13. — Continued

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut
	C — 1958 results (3 replications)							
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
1	Ill. 3141	**129**	18	87	**88**	**97**	49	**0**
2	Ill. 3190	**129**	18	85	**97**	**98**	51	**2**
3	Ill. 3192A	**127**	18	85	**93**	**97**	48	**2**
4	Ill. 3198A	**127**	17	87	**91**	**98**	49	**6**
5	U.S. 619W	**127**	18	83	**89**	**98**	49	**3**
6	Ill. 1660	**125**	19	85	**94**	**97**	48	**1**
7	Ill. 3210	**124**	18	84	**96**	**100**	51	13
8	Ill. 3200A	**123**	17	88	**90**	**94**	50	**6**
9	Ill. 3211	**123**	18	84	**90**	**96**	49	**1**
10	Ill. 1856	**122**	17	86	**95**	**99**	49	**2**
11	Ill. 3193	**122**	16	88	**96**	**97**	48	**4**
12	Ill. 3204A	**121**	18	83	**97**	**99**	50	**6**
13	Kan. 4003	**121**	18	88	**85**	**99**	51	**3**
14	Ill. 1849	**120**	18	83	**99**	**100**	46	**2**
15	Ill. 3205	**120**	18	85	**93**	**99**	50	**7**
16	Ill. 3213	**120**	17	83	**93**	**91**	47	**2**
17	Ill. 1852	**119**	17	84	**94**	**97**	47	**1**
18	Ill. 1850	**118**	18	82	**95**	**99**	50	**3**
19	Ill. 1851	**118**	17	85	**94**	**99**	51	**3**
20	Ill. 3209A	**118**	17	84	**93**	**97**	49	**3**
21	Ill. 1539A	**117**	17	84	**99**	**99**	52	**6**
22	Ill. 3205A	**117**	18	83	**92**	**99**	50	**11**
23	Ill. 3214	**117**	17	85	**94**	**100**	47	**9**
24	Ill. 3131	**116**	17	84	**93**	**99**	53	**6**
25	Ill. 3200B	**116**	17	86	**93**	**91**	52	**6**
26	Ill. 3206	**116**	18	82	**97**	**96**	48	**4**
27	Ky. 5712	**116**	18	82	**96**	**100**	44	**6**
28	Ill. 3198B	**115**	17	87	**88**	**96**	50	**6**
29	Ill. 3209B	**115**	18	85	83	**94**	50	**7**
30	Ill. 3197B	**114**	18	83	**97**	**97**	46	**6**
31	Ill. 3207	**114**	18	81	**92**	**99**	47	**1**
32	Ky. 5708	**114**	18	81	**90**	**98**	48	**5**
33	Ill. 1893	**113**	16	82	**93**	**98**	50	**8**
34	Ill. 1928	**113**	17	85	**94**	**100**	49	**1**
35	Ill. 3129	**113**	16	84	**93**	**99**	47	**10**
36	Ill. 3135	**113**	17	83	**98**	**99**	51	**0**
37	Ill. 3137	**113**	17	84	**93**	**94**	52	**5**
38	Ill. 3147	**113**	17	83	**94**	**100**	51	**2**
39	Ill. 3192	**113**	17	84	**94**	88	48	**1**
40	Ill. 3203	**113**	18	84	82	**100**	49	**3**
41	Ky. 105	**113**	19	83	80	**96**	50	**10**
42	Ill 3140	**112**	18	84	**99**	**100**	50	**8**
43	Ill. 3189	**112**	17	87	82	**97**	44	**5**
44	Ill. 3192B	**112**	17	86	**87**	**91**	46	**1**
45	Ill. 3205B	**112**	17	85	**90**	**94**	46	**0**
46	Ill. 3215	**112**	19	82	**91**	**100**	48	**7**
47	Ind. 6874	**112**	17	84	83	**99**	48	**4**
48	U.S. 523W	**112**	18	84	**91**	**99**	46	**3**
49	Ill. 1889	111	16	84	**89**	**98**	47	14
50	Ill. 1913	111	15	90	**97**	**98**	47	**2**
51	Ill. 3138	111	16	85	**94**	**96**	49	**4**
52	Ill. 3145	111	17	83	**96**	**96**	48	**5**
53	Ill. 3195	111	17	88	82	**94**	45	**5**
54	Ill. 3196B	111	18	86	**90**	**98**	48	**6**
55	Mo. 958	111	18	82	**89**	**96**	52	**5**
56	Ill. 1349	110	18	88	**92**	**97**	49	**6**
57	Ill. 3126	110	17	86	**94**	**100**	47	**1**
58	Ill. 3197A	110	19	84	**94**	**98**	46	**8**
59	Ill. 3199	110	19	83	**89**	**98**	49	**2**
60	Ill. 3208	110	18	81	**93**	**97**	47	**7**

(Table is concluded on next page)

Table 13. — Concluded

Rank in yield	Entry	Acre yield	Moisture in grain	Shelling	Erect plants	Stand	Ear height	Smut
	C — 1958 results (3 replications) — Concluded							
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
61	Ill. 1909	108	15	86	**88**	**98**	44	**4**
62	Ill. 1921	108	16	85	**99**	**96**	**43**	**8**
63	Ill. 3133	108	17	86	**93**	**100**	47	**10**
64	Ill. 3143	108	18	85	79	**97**	48	**11**
65	Ill. 3149	108	16	84	**92**	**94**	45	**5**
66	Ill. 3150	108	17	84	**94**	**96**	51	**2**
67	Mo. 4047BW	108	18	79	**93**	**99**	48	**2**
68	Ill. 1939	107	16	83	**96**	**100**	48	**8**
69	Ill. 1942	107	18	83	**86**	**100**	46	32
70	Ill. 3127	107	17	83	**99**	**93**	50	**3**
71	Ill. 3202B	107	17	83	**90**	**96**	49	**0**
72	Ill. 1918	106	16	85	**94**	**97**	49	**1**
73	Ill. 1945	106	18	84	74	**94**	47	**11**
74	Ill. 3057	106	17	85	**87**	**94**	48	12
75	Ill. 3204B	106	18	84	**84**	**96**	48	13
76	U.S. 13	106	16	86	**87**	**99**	49	**2**
77	Ill. 1771	105	18	83	77	**97**	45	**6**
78	Ill. 3134	105	17	82	**93**	**92**	49	**2**
79	U.S. 632	105	20	83	**91**	**93**	45	**7**
80	Ill. 3128	104	18	83	**88**	**94**	52	**5**
81	Ill. 3148	104	17	84	83	**93**	**41**	**9**
82	Ill. 3212	104	18	80	**90**	**91**	45	**6**
83	Ky. 2105	104	15	85	**91**	**98**	46	**7**
84	N7002	104	20	77	**90**	**98**	51	24
85	AES 805	103	16	83	**94**	**98**	46	**5**
86	Ill. 1947	103	18	83	**84**	**100**	46	**9**
87	Ill. 3136	103	16	83	**93**	**98**	46	**2**
88	Ill. 3202A	103	18	85	**90**	**96**	45	**4**
89	Ill. 1926	102	16	81	**96**	**93**	46	**2**
90	Ill. 3139	102	17	81	**98**	**100**	48	**3**
91	Ill. 200	101	16	82	79	**93**	48	**6**
92	Ill. 3146	101	18	85	**96**	**94**	47	15
93	Ill. 1943	100	18	83	**98**	**96**	47	**3**
94	Ill. 3196A	100	18	82	76	**97**	47	**8**
95	Ind. 6615	100	18	82	**88**	**99**	51	**5**
96	N7000	100	22	78	80	**99**	57	29
97	Ill. 1938	99	19	81	**91**	**100**	**43**	**10**
98	Ill. 1946	99	16	85	**90**	**97**	47	**9**
99	Ill. 1948	99	18	85	**92**	**100**	45	**3**
100	Ill. 3209	99	18	84	80	**91**	47	**6**
101	Ill 1332	98	15	85	**88**	**97**	45	**5**
102	Ill. 1570	98	16	84	**92**	**98**	45	**2**
103	Ill. 1880	98	16	85	**92**	**96**	45	**4**
104	N7001	98	20	77	**98**	**94**	63	31
105	Ill. 1656	97	16	85	**88**	**99**	**43**	**6**
106	Ill 1935	97	15	84	**87**	**97**	**43**	**8**
107	Ill. 1919	96	16	86	72	**97**	45	**8**
108	Kan. 2606	96	18	80	**87**	**99**	48	**0**
109	Ill. 1927	95	16	83	**97**	**99**	44	**2**
110	Ill. 1940	92	18	84	**93**	**96**	48	**6**
111	Ill. 1949	92	18	84	**91**	**96**	44	**2**
112	Ill. 3201	92	17	81	74	**97**	44	**6**
113	N7003	91	20	78	**91**	**93**	54	45
114	Ill. 1944	90	18	83	**87**	**97**	**43**	**7**
115	Ill. 1951	89	15	85	**90**	**98**	**38**	**7**
116	Ill. 1922	87	17	82	**97**	**100**	**43**	**4**
117	Ill. 3059	85	17	85	**96**	**100**	**41**	**1**
118	Ill. 3058	78	17	82	**94**	**99**	**43**	**1**
119	Ill. 1941	73	18	82	72	89	45	22
	Average	108	17	84	90	97	48	6

Table 14. — THREE-WAY, SINGLE, AND DOUBLE CROSSES OF ILLINOIS 1851 MATURITY

Tested in South-Central Illinois, 1958

(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	Ear height	Smut
	A — Inbred lines crossed with (B41×Oh7A)							
		bu.	*perct.*	*perct.*	*perct.*	*perct.*	*in.*	*perct.*
1	R90	99	15	86	**99**	83	48	**3**
2	R190	113	16	86	**94**	**97**	52	**2**
3	R191	111	17	85	**98**	**94**	48	**0**
4	38-11	**131**	16	88	**93**	**100**	55	7
5	K708	118	17	85	**95**	**91**	51	**2**
6	K720	111	17	88	**98**	**92**	**45**	**1**
7	K763	**124**	16	86	**100**	**98**	**46**	**2**
8	K5-50	106	17	80	**95**	**93**	49	**1**
9	K6-49	**130**	20	84	**99**	**93**	52	**5**
10	Ky55-549	**121**	18	86	**96**	**99**	**43**	**3**
11	Ky55-562	**122**	17	86	**97**	**87**	48	10
12	Ky56-433	111	16	84	**98**	**98**	**45**	**5**
13	Mo. Syn.	111	16	88	**99**	**96**	**45**	**1**
14	Mo3952	90	16	85	82	72	**42**	**5**
15	Mo3957	112	16	82	**93**	**96**	**44**	**0**
16	Mo9681	112	16	87	**100**	**93**	**45**	12
17	Mo53686	101	18	83	**97**	**92**	48	**4**
18	Oh41	107	17	86	83	**99**	**44**	**0**
19	Va6-52	117	17	82	**97**	**100**	48	**3**
20	Va6-58	115	17	83	83	**97**	**44**	**1**
21	Va6-71	118	17	85	90	**98**	**46**	**1**
22	Va6-79	119	18	81	**98**	**96**	**46**	**1**
23	Va6-112	106	17	85	**94**	**93**	48	**1**
24	Va6-118	111	18	83	**94**	**99**	**46**	**0**
25	Va6-136	114	18	84	**93**	**100**	**45**	**3**
26	Va6-224	**137**	16	87	**98**	**100**	50	**0**
27	CI.21E	**127**	18	84	**99**	**93**	51	**1**
28	CI.38B	113	16	83	**95**	**92**	49	**0**
29	(CI.21E×CI.42A)	**130**	19	91	**93**	**100**	50	**4**
	Average	115	17	85	95	95	47	3
	B — Single cross							
30	B41×Oh7A	113	17	87	**99**	**96**	50	**0**
	C — Double crosses							
31	Ill. 1851	**125**	17	85	**99**	**98**	55	7
32	Ill. 1913	**120**	14	89	**92**	**93**	49	**1**
34	Ill. 6052	112	15	86	**95**	**94**	52	**4**
35	AES 805	112	15	87	**98**	**97**	**42**	**5**
33	Ill. 6021	109	14	86	87	**97**	53	**2**
36	U.S. 13	107	16	87	**99**	**92**	**46**	**1**
	Average	114	15	87	95	95	50	3
Average of 36 entries		115	17	85	95	95	48	3

Table 15. — PERFORMANCE OF HIGH-OIL HYBRIDS AVAILABLE FOR COMMERCIAL PRODUCTION

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. 6021	102	5.41	309	9.00	514	39	75	48	98	62	..
Ill. 6052	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	..
Average	116	5.11	331	9.63	628	38	78	61	99	59	..
B — North-Central Illinois, Peoria, 1958											
Ill. 6021	120	5.09	342	9.12	613	18	83	73	100	61	7
Ill. 6052	130	6.68	486	10.00	728	18	82	72	100	63	3
Average	125	5.88	414	9.56	670	18	82	72	100	62	5
C — Central Illinois, Urbana, 1954-1958											
Ill. 6021	110	6.39	393	11.06	679	20	..	83	..	..	..
Ill. 6052	112	6.27	390	11.42	707	22	..	81	..	..	..
U.S. 13	116	4.77	311	10.24	665	20	..	86	..	..	..
Average	113	5.81	365	10.91	684	21	..	83	..	..	..
D — South-Central Illinois, Brownstown, 1958											
Ill. 6021	109	6.61	403	10.06	614	14	86	87	97	53	2
Ill. 6052	112	5.26	330	10.25	643	15	86	95	94	52	4
U.S. 13	107	4.44	266	9.56	573	16	87	99	92	46	1
Average	109	5.44	333	9.96	610	15	86	94	94	50	2

TABLE 16. — DOUBLE-CROSS HYBRID NUMBERS, PEDIGREES, AND INDEX TO TABLES

(Hybrids that were high yielding and had excellent standability are indicated by table numbers in boldface type)

Hybrid	Pedigree	Table No.
AES 510	(WF9 × W22) (H19 × B9)	2ABC
AES 601	(M14 × B14) (WF9 × W22)	**2ABC**
AES 610 (Ill. 1580)	(M14 × A73) (Oh43 × Oh51A)	2ABC
AES 702 (Ill. 1790)	(C103 × M14) (Hy2 × WF9)	**2ABC**, 4ABC, **5D**, **6ABC**, **10B**
AES 704 (Ill. 3016A)	(WF9 × Oh43) (B14 × B37)	**4ABC**
AES 805 (Ill. 1770)	(C103 × Oh45) (WF9 × 38-11)	**4ABC, 6ABC, 10B, 13ABC, 14C**
AES 808	(WF9 × 38-11) (H14 × Oh43)	6ABC
AES 809	(C103 × Oh43) (P8 × WF9)	**6ABC**
AES 810	(WF9 × H50) (Oh7B × Oh45)	**6ABC**
AES 811W	(H30 × K41) (Mo1W × N72)	**6ABC**
Ill. 21	(Hy2 × 187-2) (WF9 × 38-11)	2ABC, 4ABC, 6ABC
Ill. 21-2	(HyR × 187R) (WF9TMS × 38-11)	4C
Ill. 21-3	(WF9 × 38-11) (187-2 × Cl.42A)	4C
Ill. 21-4	(HyR × 187-2) (WF9TMS × 38-11)	4C
Ill. 101	(M14 × WF9) (187-2 × W26)	2ABC
Ill. 200	(WF9 × 38-11) (L317 × K4)	13ABC
Ill. 274-1	(Hy2 × WF9) (Oh7 × 187-2)	4ABC, **6ABC**
Ill. 972A-1	(Hy2 × L317) (WF9 × Oh7)	4ABC, **6ABC**
Ill. 1091A	(Hy2 × 187-2) (M14 × WF9)	2ABC
Ill. 1277	(M14 × WF9) (I.205 × 187-2)	2ABC, 3D, **4ABC**, 10B
Ill. 1279	(M14 × WF9) (A375 × 187-2)	2ABC
Ill. 1281	(M14 × WF9) (A374 × A375)	2ABC
Ill. 1289	(M14 × W22) (WF9 × I.205)	2ABC
Ill. 1332	(Hy2 × Oh7) (WF9 × 38-11)	**4ABC**, **6ABC**, **7**, 13ABC
Ill. 1332-2	(HyR × Oh7R) (WF9TMS × 38-11)	6BC
Ill. 1332-3	(WF9 × 38-11) (Oh7 × Cl.42A)	**6BC**
Ill. 1332-4	(HyR × Oh7) (WF9TMS × 38-11)	**6BC**
Ill. 1349	(38-11 × Mo940) (K155 × K201)	13ABC
Ill. 1511	(Hy2 × WF9) (38-11 × L304A)	4ABC, 6ABC
Ill. 1511A1	(HyR × L304A) (WF9 × 38-11MS)	4C, 6C
Ill. 1539A	(38-11 × Cl.7) (K201 × Cl.21E)	**13ABC**
Ill. 1555A	(WF9 × Oh51A) (I.224 × Oh28)	**2ABC**, 4ABC
Ill. 1557	(M14 × Oh28) (I.205 × Oh51A)	2ABC
Ill. 1559B	(M14 × Oh28) (WF9×Oh51A)	**2ABC**
Ill. 1560A	(WF9 × Oh51A) (I.205 × Oh28)	**2ABC**
Ill. 1570	(Hy2 × Oh41) (WF9 × 38-11)	4ABC, 6ABC, 7, **12B**, 13ABC
Ill. 1570-1	(HyR × Oh41) (WF9TMS × 38-11)	6BC, 7
Ill. 1570-2	(WF9 × 38-11) (Oh41 × Cl.42A)	6BC
Ill. 1570A	(Hy2 × WF9) (38-11 × Oh41)	6BC, 7
Ill. 1575	(M14 × WF9) (L12 × Oh28)	2ABC, 4ABC
Ill. 1656	(C103 × Hy2) (WF9 × 38-11)	6ABC, 13ABC
Ill. 1656-1	(C103 × HyR) (WF9TMS × 38-11)	6BC
Ill. 1656-2	(C103 × Cl.42A) (WF9 × 38-11)	6BC
Ill. 1660	(K4 × K201) (Oh7 × Cl.21E)	6BC, 7, **13BC**
Ill. 1731B	(C103 × WF9TMS) (HyR × Oh7B)	6C
Ill. 1771	(Oh7B × Cl.7) (T8 × Cl.21E)	13ABC
Ill. 1813	(C103 × Oh45) (Hy2 × WF9)	**6ABC**
Ill. 1814	(Hy2 × WF9) (M14 × Oh45)	4ABC
Ill. 1831	(WF9 × W146) (K237 × Oh45)	**4ABC**
Ill. 1849	(C103 × 38-11) (K201 × Cl.21E)	**13ABC**

(Table is continued on next page)

Table 16. — Continued

Hybrid	Pedigree	Table No.
Ill. 1850	(C103 × Cl.21E) (38-11 × K201)	**13ABC**
Ill. 1851	(C103 × 38-11) (Oh7 × Cl.21E)	6BC, **7, 10B, 13ABC, 14C**
Ill. 1852	(C103 × Cl.21E) (38-11 × Oh7)	6BC, **13ABC**
Ill. 1856	(38-11 × Oh7) (K201 × Cl.21E)	**6BC, 13ABC**
Ill. 1857	(38-11 × Oh41) (K201 × Cl.21E)	6BC
Ill. 1862 (Iowa 4779)	(M14 × WF9) (Oh43 × Oh51A)	**2ABC**
Ill. 1863	(M14 × WF9) (I.205 × Oh43)	2ABC, 4ABC
Ill. 1864	(M14 × WF9) (Oh43 × W22)	**2ABC**
Ill. 1866	(M14 × WF9) (Oh26A × Oh45)	2ABC
Ill. 1868	(C103 × Oh43) (Hy2 × WF9)	4ABC
Ill. 1875	(C103 × 38-11) (Hy2 × WF9)	4ABC
Ill. 1880	(R103 × R104) (WF9 × 38-11)	**6ABC**, 7, 13BC
Ill. 1889	(C103 × Oh45) (38-11 × Oh29)	6ABC, **13ABC**
Ill. 1890	(C103 × Oh45) (R75 × 38-11)	**6ABC**
Ill. 1893	(C103 × 38-11) (Oh7B × Oh29)	**6ABC, 13ABC**
Ill. 1909	(R130 × R151) (WF9 × 38-11)	6ABC, **13ABC**
Ill. 1913	(R151 × R154) (WF9 × 38-11)	**13ABC, 14C**
Ill. 1916	(R130 × R154) (WF9 × 38-11)	**6ABC**
Ill. 1918	(R151 × R153) (WF9 × 38-11)	**6ABC, 7, 13ABC**
Ill. 1919	(R130 × R156) (WF9 × 38-11)	4ABC, **6ABC, 7,** 13ABC
Ill. 1921	(R71 × R105) (WF9 × 38-11)	**4ABC, 6ABC,** 13ABC
Ill. 1922	(Hy2 × WF9) (R71 × R105)	**6ABC,** 13ABC
Ill. 1925	(Hy2 × WF9) (R71 × R113)	6BC
Ill. 1926	(R71A × R74) (R75 × 38-11)	**6ABC,** 13ABC
Ill. 1927	(Hy2 × WF9) (R71A × R74)	6ABC, 13ABC
Ill. 1928	(R75 × 38-11) (R98 × R105)	**4ABC, 6ABC, 13ABC**
Ill. 1930	(Hy2 × WF9) (R98 × R105)	6C
Ill. 1935	(C103 × R101) (R75 × 38-11)	6ABC, **13ABC**
Ill. 1936	(Hy2 × WF9) (M14 × B14)	**2ABC,** 4ABC
Ill. 1938	(R71 × R105) (R98 × R153)	6BC, 7, 13ABC
Ill. 1939	(R71 × R98) (R105 × R153)	6BC, 7, 13ABC
Ill. 1940	(R71 × R153) (R98 × R105)	6BC, 7, 13ABC
Ill. 1941	(R98 × R105) (R130 × R153)	13ABC
Ill. 1942	(R98 × R153) (R105 × R130)	6BC, 7, 13ABC
Ill. 1943	(R71 × R105) (R153 × R154)	6BC, 7, 13ABC
Ill. 1944	(R71 × R98) (R130 × R153)	**6BC, 7,** 13ABC
Ill. 1945	(R98 × R151) (R105 × R130)	6BC, 7, 13ABC
Ill. 1946	(R98 × R155) (R105 × R130)	6BC, 7, 13ABC
Ill. 1947	(R105 × R130) (R153 × R155)	6BC, 7, 13ABC
Ill. 1948	(R105 × R151) (R153 × R154)	6BC, 7, **13ABC**
Ill. 1949	(R71 × R105) (R151 × R153)	13ABC
Ill. 1951	(R71 × R130) (R98 × R155)	6BC, 7, 13ABC
Ill. 1952	(M14 × B14) (A545 × W64A)	**2ABC**
Ill. 1953	(M14 × A223) (B14 × W64A)	2ABC
Ill. 1955	(M14 × A297) (B14 × W64A)	**2ABC**
Ill. 1956	(M14 × A545) (B14 × A239)	2ABC
Ill. 1957	(M14 × A545) (B14 × W64A)	**2ABC**
Ill. 1958	(M14 × Oh26A) (B14 × A545)	**2ABC**
Ill. 1959 (Ind. 6225)	(M14 × W64A) (B14 × A297)	**2ABC**
Ill. 1960	(M14 × W64A) (B14 × A545)	**2ABC**
Ill. 1961	(B14 × A545) (A239 × W64A)	**2ABC**
Ill. 1962	(B14 × A545) (A297 × W64A)	**2ABC**
Ill. 1966	(R163 × R165) (WF9 × B14)	**4ABC**

(Table is continued on next page)

Table 16. — Continued

Hybrid	Pedigree	Table No.
Ill. 1967	(R163 × R168) (WF9 × B14)	4ABC
Ill. 1968	(R163 × R169) (WF9 × B14)	**4ABC**
Ill. 1969	(R165 × R168) (WF9 × B14)	**4ABC**
Ill. 1970	(R165 × R169) (WF9 × B14)	4ABC
Ill. 1971	(R168 × R169) (WF9 × B14)	**4ABC**
Ill. 1973	(R163 × R168) (R165 × R169)	6ABC
Ill. 1974	(R163 × R169) (R165 × R168)	6ABC
Ill. 1975	(WF9 × Cl.38B) (Cl.42A × Cl.317B)	6ABC
Ill. 1976	(38-11 × Oh41) (Oh7 × Cl.21E)	**6BC, 7**
Ill. 1977	(WF9 × 38-11) (Oh29 × Oh41)	6BC, 7
Ill. 1978	(C103 × 38-11) (WF9 × Oh7A)	6BC, **7**
Ill. 1980	(C103 × B14) (WF9 × 38-11)	6BC, 7
Ill. 1981	(WF9 × 38-11) (Oh7 × Cl.21E)	**6BC, 7**
Ill. 1982	(C103 × 38-11) (WF9 × Cl.21E)	6BC, 7
Ill. 1983	(Hy2 × B14) (WF9 × 38-11)	**6BC, 7**
Ill. 1983-1	(HyR × B14) (WF9 × 38-11MS)	6C
Ill. 1984	(Hy2 × WF9) (Oh29 × Oh41)	**6BC**, 7
Ill. 1985	(Hy2 × WF9) (R61 × Oh41)	6BC, 7
Ill. 1986	(Hy2 × WF9) (Oh43 × 187-2)	6BC, 7
Ill. 1987	(C103 × B10) (Hy2 × WF9)	**6BC, 7**
Ill. 1988	(C103 × R61) (Hy2 × WF9)	6BC, 7
Ill. 1989	(Hy2 × WF9) (M14 × Oh29)	**6BC**, 7
Ill. 1990	(Hy2 × WF9) (M14 × Oh43)	6BC, 7
Ill. 1991	(C103 × B10) (WF9 × Oh7A)	6BC, 7
Ill. 1992	(C103 × B14) (WF9 × Oh7A)	**6BC, 7**
Ill. 1993	(WF9 × Oh41) (B10 × B14)	6BC, 7
Ill. 1994	(C103 × WF9) (Oh29 × Oh41)	**6BC, 7**
Ill. 1995	(Hy2 × Oh7) (38-11 × Oh41)	6BC, 7
Ill. 1996	(C103 × B14) (Hy2 × Oh7)	**6BC, 7**
Ill. 1997	(C103 × Oh41) (Hy2 × Oh7)	6BC, 7
Ill. 1999	(C103 × Oh43) (M14 × WF9)	2BC
Ill. 3002 (CB4603)	(B14 × A297) (A295 × W64A)	2C
Ill. 3007	(R161 × WF9) (R169 × B14)	2BC
Ill. 3008	(R165 × WF9) (R168 × B14)	**2BC**
Ill. 3009	(B14 × B21) (A297 × W64A)	**2BC**
Ill. 3010	(C103 × N24) (WF9 × B14)	**4BC**
Ill. 3011	(C103 × Oh43) (WF9 × B14)	4BC, **6C**
Ill. 3013	(C103 × Oh41) (Hy2 × WF9)	6C
Ill. 3014	(Hy2 × WF9) (B14 × Oh41)	4BC
Ill. 3015A	(WF9 × B14) (B37 × N24)	4BC
Ill. 3015B	(WF9 × N24) (B14 × B37)	**4C**
Ill. 3016	(WF9 × B14) (B37 × Oh43)	2BC, 4BC
Ill. 3017	(WF9 × B14) (B37 × Oh45)	**4BC**
Ill. 3018	(WF9 × B14) (B38 × N24)	4BC
Ill. 3019	(WF9 × B14) (B38 × Oh43)	4BC
Ill. 3020	(WF9 × B14) (N6 × Oh43)	**4BC**
Ill. 3021	(WF9 × B14) (N6 × Oh45)	**4BC**
Ill. 3022	(WF9 × B14) (N22A × Oh43)	**4BC**
Ill. 3023A	(WF9 × B14) (N24 × Oh43)	2C, **4BC**
Ill. 3023B	(WF9 × N24) (B14 × Oh43)	2C, **4C**
Ill. 3024	(WF9 × B14) (N24 × Oh422)	4BC
Ill. 3025	(WF9 × B14) (N610 × Oh43)	4BC

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Table 16. — Continued

Hybrid	Pedigree	Table No.
Ill. 3026	(WF9 × B14) (N610 × Oh45)	**4BC**
Ill. 3027	(WF9 × B14) (N611 × Oh43)	4BC
Ill. 3028 (CB4726A)	(WF9 × B14) (Oh28 × Oh43)	4ABC, 5D
Ill. 3029	(WF9 × B14) (Oh43 × Oh45)	**4BC**
Ill. 3030	(WF9 × B14) (Oh43 × Oh422)	**4BC**
Ill. 3032	(WF9 × B38) (Oh28 × Oh43)	**4BC**
Ill. 3034	(WF9 × N6) (Oh28 × Oh43)	4BC
Ill. 3035	(WF9 × N613) (Oh28 × Oh43)	4BC
Ill. 3036	(B14 × N6) (Oh28 × Oh43)	4BC
Ill. 3038	(B37 × Oh26A) (Oh28 × Oh43)	4BC
Ill. 3039	(B37 × B38) (Oh28 × Oh43)	**4BC**
Ill. 3042	(WF9 × B14) (B40 × Oh45)	**4BC**
Ill. 3043	(R71 × R109B) (WF9 × B14)	**2BC, 4BC**
Ill. 3044	(R109B × R113) (WF9 × B14)	2BC, 4BC
Ill. 3045	(R109B × R168) (WF9 × B14)	2BC, 4BC
Ill. 3046	(R113 × R168) (WF9 × B14)	**2BC**, 4BC
Ill. 3047	(R71 × R113) (WF9 × B14)	2BC, 4BC
Ill. 3048	(R71 × R168) (WF9 × B14)	2BC, 4BC
Ill. 3049	(Hy2 × WF9) (R71 × R109B)	**6BC**
Ill. 3050	(Hy2 × WF9) (R109B × R113)	6BC
Ill. 3051	(Hy2 × WF9) (R109B × R168)	6BC
Ill. 3052	(Hy2 × WF9) (R113 × R168)	6BC
Ill. 3053	(R71 × R109B) (WF9 × 38-11)	6C
Ill. 3054	(R109B × R113) (WF9 × 38-11)	6BC
Ill. 3055	(R109B × R168) (WF9 × 38-11)	**6BC**
Ill. 3056	(R113 × R168) (WF9 × 38-11)	6BC
Ill. 3057	(R71 × R109B) (R113 × R168)	4C, 6BC, 13BC
Ill. 3058	(R71 × R113) (R109B × R168)	6BC, 13BC
Ill. 3059	(R71 × R168) (R109B × R113)	6BC, 13BC
Ill. 3060	(R129 × R159) (R166 × R168)	6BC
Ill. 3061	(R129 × R159) (R168 × R169)	6BC
Ill. 3062	(R159 × R161) (R168 × R169)	6BC
Ill. 3064	(R159 × R163) (R166 × R168)	6BC
Ill. 3065	(R159 × R163) (R168 × R169)	6BC
Ill. 3069	(R71 × R101) (R105 × R129)	6BC
Ill. 3070	(R71 × R105) (R163 × R168)	6BC
Ill. 3071	(R71 × R129) (R101 × R105)	6BC
Ill. 3073	(R71 × R163) (R105 × R168)	6BC
Ill. 3074	(R71 × R168) (R105 × R163)	**6BC**
Ill. 3075	(Hy2 × WF9) (R95 × R101)	**6BC**
Ill. 3076	(Hy2 × WF9) (R96 × R101)	6BC
Ill. 3077	(Hy2 × WF9) (R96 × B36)	6BC
Ill. 3080	(Hy2 × WF9) (R101 × Oh451)	**6BC**
Ill. 3082	(Hy2 × WF9) (R109B × B38)	6BC
Ill. 3083	(Hy2 × WF9) (R109B × K720)	6BC
Ill. 3084	(Hy2 × WF9) (R127 × B38)	6BC
Ill. 3086	(Hy2 × WF9) (R127 × K720)	6BC
Ill. 3087	(Hy2 × WF9) (R127 × K721)	6BC
Ill. 3088	(Hy2 × WF9) (R127 × N25)	6BC
Ill. 3091	(Hy2 × WF9) (B38 × L317)	6BC
Ill. 3092	(Hy2 × WF9) (B38 × K720)	**6BC**
Ill. 3093	(Hy2 × WF9) (B38 × N25)	**6BC**
Ill. 3094	(Hy2 × WF9) (B38 × N35)	6BC

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Table 16. — Continued

Hybrid	Pedigree	Table No.
Ill. 3095	(Hy2 × WF9) (L317 × K720)	6BC
Ill. 3096	(R74 × R101) (R129 × WF9)	6BC
Ill. 3097	(R95 × R101) (WF9 × 38-11)	6BC
Ill. 3099 (CB4804B)	(R101 × N5) (WF9 × 38-11)	6C
Ill. 3100	(R101 × N12) (WF9 × 38-11)	6BC
Ill. 3101	(R101 × N23) (WF9 × 38-11)	6BC
Ill. 3104	(R109B × N25) (WF9 × 38-11)	**6BC**
Ill. 3105	(R129 × R154) (WF9 × 38-11)	6BC
Ill. 3106	(R129 × N25) (WF9 × 38-11)	6BC
Ill. 3107	(R154 × B38) (WF9 × 38-11)	**6BC**
Ill. 3108	(R154 × K721) (WF9 × 38-11)	6BC
Ill. 3109	(R154 × K722) (WF9 × 38-11)	6BC
Ill. 3110	(R154 × N25) (WF9 × 38-11)	6BC
Ill. 3111	(R159 × R163) (R168 × WF9)	6BC
Ill. 3112	(WF9 × 38-11) (B38 × N25)	6BC
Ill. 3113	(WF9 × 38-11) (K722 × N25)	6BC
Ill. 3114	(Hy2 × WF9) (R101 × Cl.38B)	6BC
Ill. 3115	(R127 × N35) (WF9 × 38-11)	**6BC**
Ill. 3116	(R127 × K721) (WF9 × 38-11)	6BC
Ill. 3117	(R127 × R154) (WF9 × 38-11)	**6BC**
Ill. 3118	(Hy2 × WF9) (38-11 × B38)	6BC
Ill. 3119	(Hy2 × WF9) (R154 × B38)	**6BC**
Ill. 3120	(Hy2 × WF9) (R127 × 38-11)	6BC
Ill. 3121	(Hy2 × WF9) (R127 × R154)	**6BC**
Ill. 3124	(Hy2 × WF9) (R71 × R168)	4BC, **6BC**
Ill. 3125	(R71 × R168) (WF9 × 38-11)	6BC
Ill. 3126	(R101 × Mo3) (38-11 × K201)	**13BC**
Ill. 3127	(38-11 × K201) (Mo3 × Mo8)	13BC
Ill. 3128	(38-11 × K201) (Mo3 × Mo9)	13BC
Ill. 3129	(R101 × Mo8) (38-11 × K201)	**13BC**
Ill. 3131	(R129 × Mo3) (38-11 × K201)	**13BC**
Ill. 3133	(R127 × Mo3) (38-11 × K201)	**13BC**
Ill. 3134 (CB5916)	(R74 × Mo3) (38-11 × K201)	13C
Ill. 3135	(R71A × Mo3) (38-11 × K201)	**13BC**
Ill. 3136	(R74 × R101) (38-11 × K201)	**13BC**
Ill. 3137	(38-11 × K201) (Mo4 × Mo9)	13BC
Ill. 3138	(R129 × Mo9) (38-11 × K201)	13BC
Ill. 3139	(R71A × R101) (38-11 × K201)	13BC
Ill. 3140	(38-11 × K201) (Ky126 × Cl.21E)	**13BC**
Ill. 3141	(38-11 × K201) (K763 × Ky126)	13BC
Ill. 3143	(38-11 × K201) (Ky126 × Oh7B)	6C, 13BC
Ill. 3145	(R129 × Mo9150) (38-11 × K201)	**13BC**
Ill. 3146	(R118 × Mo9150) (38-11 × K201)	13BC
Ill. 3147	(R118 × R129) (38-11 × K201)	**13BC**
Ill. 3148	(R74 × Mo9150) (38-11 × K201)	13BC
Ill. 3149	(R74 × R129) (38-11 × K201)	**13BC**
Ill. 3150	(R74 × R118) (38-11 × K201)	13BC
Ill. 3151	(WF9 × 38-11) (B14 × Oh41)	**6BC**
Ill. 3152	(M14 × WF9) (B14 × Oh43)	**2BC**
Ill. 3152A	(M14 × B14) (WF9 × Oh43)	**2C**
Ill. 3159	(M14 × 187-2) (WF9 × Oh43)	2C
Ill. 3160	(WF9 × Oh7) (B14 × Oh43)	**4BC**

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Table 16. — Continued

Hybrid	Pedigree	Table No.
Ill. 3162	(M14 × N24) (WF9 × Oh43)	2C
Ill. 3163	(M14 × N24) (B14 × Oh43)	2C
Ill. 3164	(M14 × Oh28) (A545 × Oh43)	2C
Ill. 3167A	(WF9 × A545) (B37 × Oh43)	2C
Ill. 3167B	(WF9 × B37) (A545 × Oh43)	**2C**
Ill. 3168	(WF9 × Oh43) (B37 × N24)	2C
Ill. 3168A	(WF9 × B37) (N24 × Oh43)	2C
Ill. 3168B	(WF9 × N24) (B37 × Oh43)	2C
Ill. 3169A	(WF9 × Oh28) (B37 × Oh43)	2C
Ill. 3169B	(WF9 × Oh43) (B37 × Oh28)	**2C**
Ill. 3169C	(WF9 × B37) (Oh28 × Oh43)	2C
Ill. 3170	(WF9 × Oh43) (N24 × Oh28)	2C
Ill. 3171	(B14 × Oh43) (B37 × N24)	2C
Ill. 3172	(B14 × Oh28) (A545 × Oh43)	2C
Ill. 3173	(B14 × Oh43) (A545 × N24)	**2C**
Ill. 3174	(B37 × Oh28) (A297 × Oh43)	**2C**
Ill. 3175	(B37 × Oh43) (A545 × N24)	2C
Ill. 3176A	(B37 × A545) (Oh28 × Oh43)	2C
Ill. 3176B	(B37 × Oh43) (A545 × Oh28)	**2C**
Ill. 3177	(B37 × Oh43) (N24 × Oh28)	2C
Ill. 3178	(A297 × Oh43) (A545 × Oh28)	2C
Ill. 3179	(R101 × R105) (R151 × Cl.42A)	**4C**, 6C
Ill. 3180	(R101 × R153) (R130 × Cl.42A)	4C, 6C
Ill. 3181	(R101 × R153) (R151 × Cl.42A)	4C, 6C
Ill. 3182	(R105 × R151) (R154 × WF9)	4C, 6C
Ill. 3183	(R105 × R153) (R154 × WF9)	4C, **6C**
Ill. 3184	(R105 × Cl.42A) (R154 × WF9)	4C, 6C
Ill. 3185	(R130 × R151) (R153 × R154)	4C, 6C
Ill. 3186	(R151 × Cl.42A) (R154 × WF9)	4C, **6C**
Ill. 3187	(R151 × R154) (WF9 × Cl.317B	4C, 6C
Ill. 3188	(R154 × Cl.42A) (WF9 × Cl.317B)	4C, 6C
Ill. 3189	(C103 × 38-11) (Ky126 × Oh7B)	6C, 13C
Ill. 3190	(C103 × K201) (Ky126 × Oh7B)	6C, **13C**
Ill. 3192	(C103 × Oh7B) (Ky126 × N82481)	6C, **13C**
Ill. 3192A	(C103 × Ky126) (N82481 × Oh7B)	6C, **13C**
Ill. 3192B	(C103 × N82481) (Ky126 × Oh7B)	6C, 13C
Ill. 3193	(38-11 × K712) (K201 × Oh7B)	**13C**
Ill. 3195	(38-11 × N82481) (Ky126 × Oh7B)	13C
Ill. 3196A	(K201 × K712) (Oh7B × Oh41)	13C
Ill. 3196B	(K201 × Oh41) (K712 × Oh7B)	13C
Ill. 3197A	(K201 × Oh7B) (K712 × Cl.21E)	13C
Ill. 3197B	(K201 × Cl.21E) (K712 × Oh7B)	**13C**
Ill. 3198A	(K201 × Ky126) (N82481 × Oh7B)	**13C**
Ill. 3198B	(K201 × N82481) (Ky126 × Oh7B)	13C
Ill. 3199	(K201 × Ky126) (N82481 × Oh41)	13C
Ill. 3200A	(K712 × Ky126) (N82481 × Oh7B)	13C
Ill. 3200B	(K712 × Oh7B) (Ky126 × N82481)	13C
Ill. 3201	(K712 × Ky126) (Oh7B × Oh41)	13C
Ill. 3202A	(K712 × N82481) (Oh7B × Cl.21E)	13C
Ill. 3202B	(K712 × Oh7B) (N82481 × Cl.21E)	13C
Ill. 3203	(K712 × Cl.21E) (Oh7B × Oh41)	13C
Ill. 3204A	(C103 × K712) (K201 × Ky126)	**13C**
Ill. 3204B	(C103 × Ky126) (K201 × K712)	13C
Ill. 3205	(C103 × Oh7B) (K201 × K712)	13C
Ill. 3205A	(C103 × K201) (K712 × Oh7B)	13C

(Table is continued on next page)

Table 16. — Continued

Hybrid	Pedigree	Table No.
Ill. 3205B	(C103 × K712) (K201 × Oh7B)	13C
Ill. 3206	(C103 × K712) (K201 × Cl.21E)	**13C**
Ill. 3207	(C103 × Oh7B) (K201 × N82481)	13C
Ill. 3208	(C103 × Oh7B) (K201 × Cl.21E)	13C
Ill. 3209	(C103 × Oh7B) (K712 × Ky126)	13C
Ill. 3209A	(C103 × K712) (Ky126 × Oh7B)	13C
Ill. 3209B	(C103 × Ky126) (K712 × Oh7B)	13C
Ill. 3210	(C103 × K712) (Ky126 × Cl.21E)	**13C**
Ill. 3211	(C103 × K712) (Oh7B × Cl.21E)	13C
Ill. 3212	(C103 × Oh41) (K712 × Cl.21E)	13C
Ill. 3213	(C103 × N82481) (Oh7B × Cl.21E)	13C
Ill. 3214	(K201 × Ky126) (K712 × Oh7B)	**13C**
Ill. 3215	(K712 × Oh41) (Ky126 × Cl.21E)	13C
Ill. 3286	(C103 × WF9TMS) (HyR × 187-2R)	6C
Ill. 3287	(C103 × Oh43) (WF9 × Oh51A)	**2C**
Ill. 3288	(M14 × Oh28) (WF9 × Oh43)	2C
Ill. 3289	(C103 × Oh28) (WF9 × Oh43)	2C
Ill. 3290	(C103 × Os420) (WF9 × Oh43)	2C
Ill. 3291	(P8 × WF9) (B14 × Oh43)	**4C**
Ill. 3292	(Hy2 × WF9) (R61 × B14)	4C
Ill. 3293	(Hy2 × WF9) (B14 × 187-2)	4C
Ill. 3294	(C103 × Hy2) (P8 × WF9)	**4C**
Ill. 3295	(C103 × B14) (P8 × WF9)	6C
Ill. 3296	(C103 × B14) (R61 × WF9)	6C
Ill. 3297	(Hy2 × WF9) (B14 × Oh43)	6C
Ill. 3298	(C103 × B14) (Oh7 × Cl.21E)	6C
Ill. 3299	(C103 × B14) (WF9 × Cl.42A)	6C
Ill. 2246W	(R144 × R145) (R148 × R149)	6BC, 7
Ill. 2247W	(R144 × R145) (R146 × R148)	**2ABC**
Ill. 2249W	(R147 × R148) (H21 × 33-16)	4C, 6C
Ill. 6016	(R78 × K4) (R84 × 38-11)	3D, 6C, **10B**
Ill. 6021	(R75 × R76) (R84 × K4)	2C, 3D, 4C, 6C, **8ABC**, **10B**, **12B**, 14C, **15ABCD**
Ill. 6052	(R78 × 38-11) (R84 × K4)	2C, 3D, 4C, 6C, **8ABC**, **10B**, **14C**, **15ABCD**
Ill. 6062	(R76 × K4) (R78 × R84)	3D, 8BC, **10B**
Ill. 6075	(R75 × R83) (R78 × R87)	10B
Ill. 6084	(R78 × R117) (R84 × R87)	10B
Ill. 6106	(R76 × R81) (R78 × R82)	8C
Ill. 6107	(R76 × R83) (R78 × R80)	8C
Ill. 6108	(R76 × R87) (R120 × R158)	8C
Ill. 6109	(R78 × R85) (R92 × R117)	**8C**
Ill. 6110	(R78 × R88) (R120 × R121)	8C
Ill. 6111	(R79 × R91) (R94 × R118)	**8C**
Ill. 6112	(R80 × R85) (R83A × R90)	8C
Ill. 6113	(R80 × R88) (R83 × R83A)	8C
Ill. 6114	(R76 × R84) (R78 × R87)	8C
Ill. 6115	(R83A × R91) (R92 × R118)	**8C**
Ill. 6116	(R94 × R117) (R118 × R119)	8C
Ind. 6225 (Ill. 1959)	(M14 × W64A) (B14 × A297)	**2BC**
Ind. 6615	(H49 × H55) (H53 × B14)	13BC
Ind. 6623	(C103 × H53) (WF9 × H52)	6BC

(Table is concluded on next page)

Table 16. — Concluded

Hybrid	Pedigree	Table No.
Ind. 6833	(WF9 × H52) (H54 × H60)	6BC
Ind. 6874	(H49 × H52) (H59 × H60)	**13BC**
Iowa 4297	(M14 × 187-2) (WF9 × I.205)	4ABC
Iowa 4880 (Ill. 3019A)	(WF9 × Oh43) (B14 × B38)	**4BC**
Iowa 4947	(M14 × WF9) (A257 × Oh51A)	2C
Iowa 4989	(WF9 × B14) (B37 × B42)	**4C**
Iowa 4991	(WF9 × B14) (B42 × Oh43)	4C
Iowa 5023	(WF9 × B14) (B38 × B39)	6C
Iowa 5053	(M14 × WF9) (A257 × W182D)	2C
Iowa 5113	(WF9 × B14) (B39 × B45)	6C
Iowa 5115	(WF9 × B14) (B45 × Cl.31A)	**6C**
Kan. 2606	(K41 × K723) (K728 × K741)	13C
Kan. 4003	(K711 × K713) (K712 × Oh7B)	13C
Ky. 105	(38-11 × Oh7B) (T8 × Cl.21E)	13C
Ky. 2105	(H21 × 33-16) (Ky209 × Ky211)	13C
Ky. 5708	(C103 × Cl.21E) (Cl.29C × Cl.38B)	13C
Ky. 5712	(33-16 × Cl.64) (K55 × Ky201)	**13C**
Mich. 53-151	(WF9 × MS209) (MS106 × MS107)	2ABC
Minn. 200 (CB4617)	(M14 × W64A) (B14 × A239)	**2C**
Minn. 201	(M14 × B14) (WF9 × Oh51A)	2C
Minn. CB4603 (Ill. 3002)	(B14 × A297) (A295 × W64A)	2ABC
Minn. CB4621	(B14 × A239) (A295 × W64A)	2ABC
Mo. 958	(B41 × Oh7A) (Mo3 × Cl.21E)	13BC
Mo. 971	(WF9 × Oh7A) (Mo9248 × T202)	6C
Mo. 4047BW	(H28 × K41) (K6 × K55)	13C
Nebr. 1781C	(M14 × WF9) (N6 × N15)	4C
Nebr. 2248	(Hy2 × WF9) (B40 × N6)	6C
Ohio M15	(A × W23) (Oh26 × Oh51)	2BC
Ohio K24	(WF9 × Oh51A) (Oh33 × Oh40B)	2ABC
ISP 2	(C103 × Oh45) (M14 × WF9)	2ABC
U.S. 13	(Hy × L317) (WF9 × 38-11)	3D, 6ABC, 8ABC, 9C, **10B**, 13ABC, 14C, 15ACD
U.S. 523W	(K55 × K64) (Ky27 × Ky49)	13ABC
U.S. 619W	(K55 × Cl.64) (Ky27 × Ky49)	13BC
U.S. 632	(Cl.3A × Cl.27) (Cl.42A × Cl.21E)	13C
A 101	(Hy2 × Oh7) (88-4A × SS101)	6BC
A 102	(Hy2 × Oh7) (128-4A × SS101)	**6BC**
N7000	(B2895S × B49S) (K4-Ky36-11 × B489S)	13C
N7001	(B2895S × B278S) (B1138T × B670T)	13C
N7002		13C
N7003	(B2895S × B2778S) (B489S × B670T)	13C

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