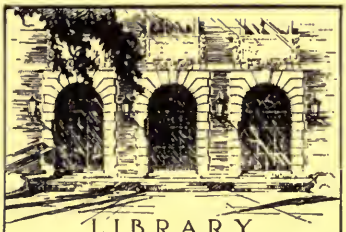

ILLINOIS HYBRID CORN TESTS 1944

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Urbana, Illinois February, 1945

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ILLINOIS HYBRID CORN TESTS 1944

By G. H. Dungan, J. H. Bigger, A. L. Lang,
Benjamin Koehler, and Oren Bolin[1]

NINETY-SIX PERCENT of the corn acreage in Illinois in 1944 was planted with hybrid seed. The average yield for the state was estimated to be 45 bushels an acre despite the fact that yields in some areas were seriously cut by too little rainfall.[2] Such a state average under the growing conditions of 1944 is evidence of the adaptability and drouth-resistance of hybrid corn.

PLAN OF THE TESTS

Number of hybrids and their source. Two hundred thirty-seven hybrids were grown on seven Illinois test fields in 1944. Thirty-four companies and individuals, including the Kansas as well as the Illinois Agricultural Experiment Station, furnished the seed for the tests.

Seventy-two hybrids were tested at the Mt. Morris, Galesburg, and Milford fields; 60 at Sullivan and Alhambra; 60 on the bottomland field at the Dixon Springs Experiment Station, and 14 on the upland field.

Most of the seed for planting the test fields was taken directly from the warehouses of the producers entering the corn. In a few instances producers delivered small quantities to the Experiment Station. Seed of Illinois and United States hybrids in commercial production was obtained from the Illinois Crop Improvement Association. Seed of Kansas hybrids and Illinois hybrids not in commercial production was supplied by the respective Experiment Stations.

Most of the hybrids selected for testing are extensively grown. Some experimental hybrids were included because they had shown promise for commercial production in preliminary tests. A few hybrids were put in the tests mainly to meet the field-performance requirement for certification.

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[2]Estimates for the acreage of hybrid corn and the average yield for the state were furnished by the Illinois Cooperative Crop Reporting Service, Illinois State Department of Agriculture cooperating with the U. S. Department of Agriculture.

Table 1.—GENERAL INFORMATION: Illinois Cooperative Hybrid Corn Tests, 1944

Field	County and location in state	Number of entries	Date planted	Date harvested	Average acre-yield		Average moisture in grain	Average erect plants
					Total	Sound		
					bu.	*bu.*	*perct.*	*perct.*
Mt. Morris	Ogle (N)	72	May 29, 30	Nov. 9, 10	89.1	88.8	23.1	97.8
Galesburg	Knox (WNC)	72	May 20	Nov. 8	91.2	88.9	18.1	99.3
Milford	Iroquois (ENC)	72	June 5	Nov. 14	88.0	87.2	21.2	90.7
Sullivan	Moultrie (SC)	60	May 18	Oct. 24	91.6	90.7	16.5	76.8
Alhambra	Madison (S)	60	May 16	Oct. 10, 11	32.9	32.6	13.9	69.8
Robbs (Dixon Sp.)	Pope (Ex. S)							
	Bottomland	60	June 1	Nov. 2	48.5	47.4	20.4	100.0
	Upland	14	June 1	Nov. 1	22.0	21.0	18.3	99.6

COOPERATORS: EARL KUMP, *Ogle county*; EARL and WEBSTER GEHRING, *Knox county*; CROW'S HYBRID CORN COMPANY, *Iroquois county*; R. B. VANDEVEER, Farm Manager, Illinois Masonic Home Farm, *Moultrie county*. The Alhambra field in Madison county is conducted by the Illinois Station. The Pope county field at Robbs is part of the Dixon Springs Experiment Station.

Soil characteristics of fields. The test fields were medium to high in productivity, and each represents a soil type common to the region where it is located. Care was taken to have each field as uniform as possible in soil type, productivity, and drainage. The field on the bottomland at the Dixon Springs Experiment Station at Robbs was the most variable in productivity, and the Alhambra field contained a number of "slick spots."

Tests were conducted on the same farms as in 1943, but in different fields on these farms. The approximate location of the test fields is shown on the map on the front cover. General information on soil characteristics and soil management is given in Table 2.

Method of planting. All test plots were planted by hand on land prepared in the regular way for corn. Each plot consisted of 2 rows 10 hills long, except on the bottomland field at Dixon Springs, where the plots were all 2 rows wide and 8 hills long. Three kernels were dropped in each hill except on both fields at Dixon Springs where only 2 kernels were planted. Six plots of each entry arranged in controlled random order were planted on all fields, and data from all plots were included in the results. The only correction for imperfect stand was an adjustment for missing hills.

WEATHER CONDITIONS

Wet weather delayed corn planting beyond the usual date in most sections of the state and especially in the extreme southern and eastern areas. Good stands were obtained on all the test fields.

Deficiency of moisture during July and August was a severe handi-

Table 2.—TESTING FIELDS: Soil Characteristics and Management Practices

Soil type	Lime requirement	Available phosphorus	Available potassium	Previous crops and soil management
		Northern: Mt. Morris		
Tama silt loam	*tons* 3	Low	Low	Small grain 1942; clover hay and pasture 1943; moderate application of manure for corn.
		West north-central: Galesburg		
Muscatine silt loam	3	Medium	Medium	Corn 1936, 1937; oats 1938; clover 1939; corn 1940, 1941; oats-rape hog pasture 1942; clover 1943. Rock phosphate applied 1924; limestone applied 1941; manure applied ahead of first-year corn.
		East north-central: Milford		
Milford clay loam	0	High	Medium	Alfalfa meadow 1942, 1943; rock phosphate applied for alfalfa.
		South-central: Sullivan		
Flanagan silt loam	2	High	Medium	Oats 1940; alfalfa 1940-1943 (fall-plowed); corn 1944.
		Southern: Alhambra		
Putnam silt loam	None	High	Low	Oats (sweet clover) 1941; soybeans 1942; wheat (sweet clover 1943).
		Extreme southern: Robbs (Dixon Springs)		
Upland field: Ava silt loam	None	Low	Low	Soybeans 1941; winter grain 1942; sweet and red clover 1943. Limestone and phosphate applied 1940.
Bottomland field: Bonnie silt loam	2	Low	Low	Corn harvested for silage 1943, winter rye pasture plowed down for corn, no soil treatment.

R. S. SMITH, Chief in Soil Physics and Soil Survey, has approved the soil type designation, uniformity, and physical characteristics of the above fields.

cap to the crop in all sections of the state except the northern. It was most critical in the southern areas. The low average yields at Alhambra and on the Dixon Springs field at Robbs, as shown in Table 1, reflect the effect of the moisture shortage. Corn on the upland field at the Dixon Springs Experiment Station was almost a failure.

INSECT PESTS

Chinch bugs. The insect that caused the greatest damage to corn in Illinois in 1944—about 5 million dollars' worth—was the chinch bug, *Blissus leucopterus* (Say).

In the test field at Alhambra the damage was somewhat obscured by drouth damage. In late summer, however, it was possible to get

some measure of the destruction caused by this insect and correlate it later with the test weights of the grain. The hybrids with the highest test weights (*Table 15, page 473*) had been least hurt by chinch bugs. Some idea of the relative ability of the different hybrids to withstand chinch bug attack may be obtained by studying these test weights.

Southern corn rootworm. A great deal of lodging in cornfields in the northern half of the state was caused by the southern corn rootworm, *Diabrotica duodecimpunctata* (F.), in 1944; but Sullivan, in Moultrie county, was the only test field attacked. Altho the lodging on this field was not as severe as it was in many farmers' fields, it was heavy enough so that satisfactory records of damage could be taken at harvest time. As shown in Table 13, page 471, 4.3 to 45.7 percent of the plants lodged 30 degrees or more. Comparatively few hybrids, however, developed the more severe lodging.[1]

European corn borer. A moderate increase in the abundance of the European corn borer, *Pyrausta nubilalis* (Hbn.), took place in 1944. The increase was most marked in the northern part of the state north of a line drawn from about the middle of Vermilion county to Mercer county. This line is of course only approximate but it is as accurate as can be estimated at this time.

Appreciable amounts of breakage due to borer attack were found in the test fields at Milford in Iroquois county and at Mt. Morris in Ogle county (*Table 6, page 464*). Records were made of all plants broken over below the ear at harvest time when the break was at the point of visible borer attack.

None of the hybrids in these tests showed outstanding resistance to the corn borer. At Milford 4.7 to 19.3 percent of the plants were broken below the ear. The average for the field was 10.2 percent. Since a difference of 5.5 between percentages is necessary for the difference to mean anything, one has to go to the 41st entry, for example, before finding one that is significantly less good in this respect than the first.

Borer breakage at the Mt. Morris field was considerably less than at Milford, ranging from 1.3 to 9.5 percent and averaging 4.6 percent. On this field a difference of 4.1 between percentages is necessary for significance. This means that one has to go down to the 48th entry in Table 6 before finding one that can be said to be less good in this respect than the first entry.

With heavier infestations, which may develop, differences between hybrids may become more apparent.

Corn earworm. Injury from the corn earworm, *Heliothis armigera* (Hbn.), occurred at Dixon Springs, in Pope county, on both

[1]The method of taking records and computing the resistance ratings are standard and are described in Bulletin 500 of this Station, which reports the 1943 hybrid corn tests.

the upland and the bottomland fields. Every ear except those on the long-husked hybrids was fed upon by earworms, and Fusarium rot was prominent on the injured kernels. Practically all the rot damage to the corn on the Dixon Springs test fields was caused by fungi that entered the kernels thru wounds inflicted by earworms.

Grasshoppers. Damage by grasshoppers (*Locustidae*) was moderate at Alhambra. It was not heavy enough to bring out differences between the hybrids.

DISEASE DAMAGE[1]

No very serious damage to corn from disease occurred in any large area of Illinois in 1944. Moderate losses from various diseases nevertheless added up to a sizable damage in total.

Seedling diseases. Benefits obtained from seed treatments are believed to be due entirely to the effectiveness of such treatments in reducing damage from seedling diseases. Damage from the numerous organisms that cause these diseases is greatest when the seed germinates in cold, wet soil, especially in cold soil.

In tests on the University south farm at Urbana in 1944, significant increases in yield were obtained by treating the seed. The seed was

[1]Estimates of losses are based, for the most part, on comparison of separate observations made by G. H. BOEWE, Illinois State Natural History Survey; J. S. TIDD, Federal Emergency Plant Disease Survey, and BENJAMIN KOEHLER, Department of Agronomy, University of Illinois.

Table 3.—RESPONSE TO SEED TREATMENT: Arasan Applied at Rate of One Ounce per Bushel of Seed, Urbana, 1944

Rank based on yield from treated seed	Entry[a]	Increase in yield from treatment	Total acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest	Erect plants
			Treated	Untreated			
		bu.	*bu.*	*bu.*	*perct.*	*perct.*	*perct.*
1	Illinois Hybrid 2059(W)	1.8	105.3	103.5	3.37	18.5	87
2	Illinois Hybrid 201	4.1	103.6	99.5	5.07	17.2	91
3	Illinois Hybrid 273-1	4.0	102.3	98.3	4.35	17.1	93
4	U. S. Hybrid 13	1.3	100.3	99.0	6.56	17.7	93
5	Illinois Hybrid 1173	3.7	99.8	96.1	6.07	17.7	96
6	Illinois Hybrid 972-A1	4.0	99.5	95.5	5.32	17.4	88
7	Illinois Hybrid 21	1.7	99.2	97.5	5.14	17.0	95
8	Illinois Hybrid 206	3.6	98.8	95.2	6.51	17.7	91
9	Illinois Hybrid 246	1.5	98.3	96.8	5.42	17.9	79
10	Illinois Hybrid 804	4.3	98.0	93.7	6.19	18.3	86
11	Illinois Hybrid 1182-1	3.6	96.2	92.6	5.35	17.6	96
12	U. S. Hybrid 35	4.7	96.2	91.5	3.72	17.2	91
13	Illinois Hybrid 200	3.7	96.0	92.3	4.81	18.3	93
14	Illinois Hybrid 960	1.5	95.8	94.3	3.39	17.4	89
15	Illinois Hybrid 784	3.7	91.7	88.0	7.72	19.0	80
16	Illinois Hybrid 448	2.7	90.5	87.8	6.30	19.5	89
17	Illinois Hybrid 751	2.8	88.1	85.3	4.72	16.9	90
18	Illinois Hybrid 101	4.4	84.6	80.2	4.11	16.7	79
	Difference needed for significance	1.6	4.9	4.9	1.68	....	..

[a]For pedigrees see Table 4. There were eight replicated plots of each hybrid.

planted on May 13, which is within the generally recommended planting time, and Arasan was used at the rate of 1 ounce per bushel of seed.

In this test (*Table 3*) increases ranged from 1.3 to 4.7 bushels following seed treatment, and all but three of the increases were significant. The average increase was 3.2 bushels an acre.

Different hybrids responded somewhat differently to seed treatment. In previous tests, however, seed of the same hybrid from different sources also responded differently. This is to be expected since the conditions under which seed is produced influences the extent of seed infection, seed-coat injuries, and the physical and chemical nature of the seed.

Root rots. Loss from root rot on field corn in Illinois was estimated as 2 percent in 1944. This was somewhat less than in 1943.

Diplodia stalk rot. Premature dying of scattered plants occurred in many fields in south-central Illinois by September 1, and in many areas farther north at a little later date. Examination of fields in 36 representative counties in October showed about 45 percent of the plants infected with Diplodia stalk rot. Loss in yield was estimated at 3.5 percent.

Stewart's disease. This disease was moderately prevalent in the leaves of dent corn thruout most of south-central Illinois, but for the most part damage was light.

Helminthosporium leaf blight. This disease was practically absent in 1944, tho it had attracted considerable attention in 1942. Dry conditions during the summer appear to keep it in check.

Smut. Loss from smut was less than normal—about .7 percent.

Ear rots. All types of ear rot together damaged about 5.1 percent of the kernels in the 1944 corn crop. Diplodia damaged about 3 percent, twice as much as in 1943. Damage from *Fusarium moniliforme* was about 1.3 percent, the same as in 1943. Other types averaged about .8 percent.

In a test at Urbana (*Table 4*) various hybrids showed highly significant differences in rot damage. Differences in physiological or chemical nature of the kernels, in husk coverage, and in angle at which the ear is borne—whether it points upward or is declined downward—are known to cause differences in a hybrid's reaction to ear-rot infection. Illinois 2059(W), which in Table 4 ranks first in freedom from rot damage, also ranked first in good husk coverage, and 60 percent of the ears were declined downward on October 5. This hybrid also ranked first in yield (*Table 3*).

Hybrids may rank differently in different seasons in their susceptibility to ear rot because the different kinds of rots vary in importance from year to year, and also because hybrids respond differently to different seasonal conditions. In this test, for example, Illinois 784 ranked significantly below Illinois 201, whereas in some previous tests it ranked higher.

Table 4.—DAMAGE FROM KERNEL ROT: Figures Are Based on Examination of Shelled Corn, Urbana, 1944

Rank	Entry[a]	Pedigree of entry	Rot damage
			perct.
1	Illinois Hybrid 2059(W)	(Ky27 × CI. 61) (33-16 × K6)	3.37
2	Illinois Hybrid 960	(R4 × Hy) (701 × L317)	3.39
3	U. S. Hybrid 35	(WF9 × 38-11) (R4 × Hy)	3.72
4	Illinois Hybrid 101	(WF9 × M14) (CC7 × 187-2)	4.11
5	Illinois Hybrid 273-1	(WF9 × 38-11) (187-2 × O7)	4.35
6	Illinois Hybrid 751	(A × 90) (WF9 × Hy)	4.72
7	Illinois Hybrid 200	(WF9 × 38-11) (K4 × L317)	4.81
8	Illinois Hybrid 201	(WF9 × 38-11) (187-2 × L317)	5.07
9	Illinois Hybrid 21	(WF9 × 38-11) (Hy × 187-2)	5.14
10	Illinois Hybrid 972-A1	(WF9 × O7) (Hy × L317)	5.32
11	Illinois Hybrid 1182-1	(WF9 × 38-11) (187-2 × RR98)	5.35
12	Illinois Hybrid 246	(WF9 × Hy) (187-2 × L317)	5.42
13	Illinois Hybrid 1173	(WF9 × Hy) (RR98 × 187-2)	6.07
14	Illinois Hybrid 804	(5120 × 38-11) (K4 × L317)	6.19
15	Illinois Hybrid 448	(38-11 × Kys) (K4 × L317)	6.30
16	Illinois Hybrid 206	(WF9 × 38-11) (5120 × L317)	6.51
17	U. S. Hybrid 13	(Hy × L317) (WF9 × 38-11)	6.56
18	Illinois Hybrid 784	(Hy × 5120) (K4 × L317)	7.72
	Difference needed for significance		**1.68**

[a]There were eight 40-hill plots of each hybrid. All the ears of each plot were shelled and a representative sample taken with a special sampling device.

This is the first time the relative susceptibility of some of these hybrids to rot damage has been accurately measured. It had been previously established, however, in a four-year test that Illinois 960 was significantly less susceptible to rot than Illinois 201, Illinois 784, and U.S. 13.

MEASURING PERFORMANCE

The entries in the 1944 test are listed in the tables in the order of their total yields. Two or more entries having the same total yield are given the same rating, but the one having the higher yield of sound corn is placed first. Those having the same total yield and sound yield are placed in order by percentage of erect plants.

Erect plants. The percentage of erect plants in each entry on each field was estimated at the time of harvest. The ratings for erect plants show how the percentage of erect plants for each hybrid compared with the percentage of erect plants on the field as a whole. (Each rating is obtained by dividing the percentage of erect plants for that hybrid by the percentage of erect plants on the field as a whole and multiplying by 100.)

Lodging may have been due to rootworm damage, weak or rotted roots, corn borer damage, or weak stalks. Stalks broken above the ear were not considered lodged.

Yield of grain. To determine shelling percentage, all the ears from one replicate of each entry were shelled. From this shelled corn one sample was taken to determine the percentage of moisture at

harvest and another to determine the percentage of damaged kernels.[1] The percentage of damaged corn was determined according to the federal grain standards.

The total acre-yield was calculated as shelled corn containing 15.5 percent moisture, the upper limit allowable in No. 2 corn. The yield of sound corn was computed by deducting the amount of damaged corn from the total yield.

The rating of any hybrid for sound yield is the ratio, expressed as percentage, of the yield of sound corn from that hybrid to the average yield of sound corn from all the hybrids on the field.

Height of ear. Notes on comparative ear height were taken at harvest time. Each plot of each entry was placed in one of the five following categories: low, mid-low (midway between low and medium), medium, mid-high (midway between medium and high), and high. Beginning with low and continuing progressively to high, these terms were assigned numerical values from 1 to 5 to permit the averaging of the plots.

Significance of yield differences. Too much confidence must not be placed in the particular ranking of a hybrid in the following tables, for chance has played a part in determining its position. Unaccountable variability in the soil and conditions on the field will cause differences in yield that are not inherent in the hybrids themselves.

The part played by chance in the 1944 tests has been calculated for total yield by the mathematical procedure known as "analysis of variance." At the bottom of each table is stated the approximate difference there must be between any two entries in order for them to show a true inherent difference. Unless two hybrids differ by at least this amount, there is no assurance that one hybrid is inherently higher yielding than the other.

[1]For the Alhambra and Sullivan fields the moisture determinations were made with a Tag-Heppenstall moisture meter. Those for all the other fields were made with a Steinlite moisture tester.

Readers are urged to note the difference necessary for significance, as shown for each test field, and to keep that difference constantly in mind in all comparisons of hybrids on that field.

TABLE 5.—NORTHERN ILLINOIS: Mt. Morris, 1944

Rank	Entry	Acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest	Erect plants	Rating for—		Comparative height of ear
		Total	Sound				Erect plants	Sound yield	
		bu.	*bu.*	*perct.*	*perct.*	*perct.*	*perct.*	*perct.*	
1	Illinois Hybrid 269	99.3	99.3	0	22.5	100.0	102.2	111.8	Medium
2	Pfister Hybrid 4897	98.1	98.1	0	20.4	97.7	99.9	110.5	Medium
3	Holmes Utility Hybrid 49	98.1	97.9	.2	23.3	97.2	99.4	110.2	M-high
4	Pioneer Hybrid 340	97.6	97.4	.2	22.3	97.3	99.5	109.7	Medium
5	DeKalb Hybrid 458	97.3	97.2	.1	22.5	98.7	100.9	109.5	Medium
6	Illinois Hybrid 1091A	97.2	94.9	2.4	22.5	98.8	101.0	106.9	Medium
7	Nichols Hybrid N-75	97.0	96.3	.7	23.2	98.3	100.5	108.4	M-low
8	Frey Hybrid 425	96.8	94.3	2.6	24.9	97.7	99.9	106.2	Medium
9	DeKalb Hybrid 615	95.2	95.0	.3	22.8	97.5	99.7	107.0	Medium
10	Holmes Utility Hybrid 96	94.6	94.2	.4	21.4	96.8	99.0	106.1	Medium
11	Nichols Hybrid 5A	94.4	94.0	.4	23.2	98.2	100.4	105.9	Medium
12	Pioneer Hybrid 341	94.3	94.0	.3	23.2	98.8	101.0	105.9	Medium
13	Illinois Hybrid 751	93.6	93.4	.2	22.9	99.3	101.5	105.2	Medium
14	Illinois Hybrid 1180	93.5	93.3	.2	21.9	98.8	101.0	105.1	Medium
15	Funk Hybrid G-30	93.4	93.0	.4	23.6	98.3	100.5	104.7	Medium
15	Sieben Hybrid S-440	93.4	92.9	.5	26.8	98.8	101.0	104.6	Medium
17	Funk Hybrid G-114	92.6	92.3	.3	23.7	98.0	100.2	103.9	Medium
18	Pioneer Hybrid 330	92.5	91.9	.7	22.8	98.8	101.0	103.5	Medium
19	Producers' Hybrid 1010	91.9	91.7	.2	23.3	96.5	98.7	103.3	Medium
19	Hoosier Crost Hybrid F-138	91.9	91.2	.8	22.2	94.0	96.1	102.7	Medium
21	DeKalb Hybrid 609	91.8	91.6	.2	25.2	96.8	99.0	103.2	Medium
22	Sieben Hybrid S-350	91.6	91.6	0	24.4	96.0	98.2	103.2	M-high
22	Stiegelmeier Hybrid 360	91.6	91.4	.2	23.5	99.2	101.4	102.9	Medium
24	DeKalb Hybrid 450	91.4	91.2	.2	23.9	98.2	100.4	102.7	Medium
24	Nichols Hybrid N-400	91.4	91.0	.4	22.2	96.7	98.9	102.5	Medium
24	Holmes Utility Hybrid 29	91.4	90.9	.6	24.3	99.3	101.5	102.4	Medium
27	DeKalb Hybrid 422	91.3	91.3	0	22.2	97.2	99.4	102.8	Medium
27	Funk Hybrid G-38	91.3	91.2	.1	23.2	96.3	98.5	102.7	Medium
29	Farmcraft Hybrid 42	91.1	90.6	.6	21.6	98.5	100.7	102.0	Medium
30	National Hybrid 114	90.9	90.1	.9	21.7	99.2	101.4	101.5	Medium
31	Pfister Hybrid 366	90.8	90.5	.3	23.3	96.0	98.2	101.9	Medium
32	Blackhawk Hybrid 98A	90.4	90.3	.1	23.3	97.8	100.0	101.7	Medium
33	Producers' Hybrid 1020	90.3	90.3	0	21.1	99.7	101.9	101.7	Medium
34	Hoosier Crost Hybrid F.D.4	89.9	89.7	.2	21.5	94.0	96.1	101.0	Medium
35	Funk Hybrid G-42	89.8	89.2	.7	20.6	97.8	100.0	100.5	Medium
36	Pioneer Hybrid 353	89.4	89.3	.1	19.7	98.2	100.4	100.6	Medium
37	Moews Hybrid 15	89.1	89.0	.1	22.0	96.8	99.0	100.2	Medium
37	Funk Hybrid G-29	89.1	88.5	.7	27.3	96.3	98.5	99.7	M-low
39	Nichols Hybrid 202A	88.9	88.8	.1	23.3	99.7	101.9	100.0	Medium
40	Crow Hybrid 432	88.7	88.6	.1	24.2	98.0	100.2	99.8	Medium
40	Wisconsin Hybrid 645	88.7	88.5	.2	22.6	98.3	100.5	99.7	Medium
40	Holmes Utility Hybrid 39	88.7	88.3	.4	27.7	99.2	101.4	99.4	M-high
43	Pfister Hybrid 274	88.6	88.4	.2	23.5	98.3	100.5	99.5	Medium
44	Pfister Hybrid 260	87.9	87.9	0	24.3	99.8	102.0	99.0	Medium
44	Lowe Hybrid 14	87.9	87.2	.8	23.2	96.8	99.0	98.2	Medium
46	Frey Hybrid 410	87.6	87.6	0	21.9	98.5	100.7	98.6	Medium
46	Pioneer Hybrid 353A	87.6	87.5	.1	22.0	98.3	100.5	98.5	Medium
48	DeKalb Hybrid 410	87.5	87.3	.2	23.1	98.0	100.2	98.3	M-low
49	Funk Hybrid G-12	87.3	87.1	.2	21.8	96.3	98.5	98.1	Medium
49	Pioneer Hybrid 322	87.3	85.3	2.3	21.7	98.8	101.0	96.1	Medium
51	Morgan Hybrid M-105	87.0	86.9	.1	20.8	97.2	99.4	97.9	Medium
52	Funk Hybrid G-16	86.7	86.6	.1	23.2	96.3	98.5	97.5	Medium
52	Stiegelmeier Hybrid 379	86.7	86.5	.2	24.1	98.8	101.0	97.4	Medium
54	Iowealth Hybrid AF11	85.8	85.2	.7	21.8	94.0	96.1	95.9	Medium
55	Blackhawk Hybrid 111	85.6	85.4	.2	22.1	98.0	100.2	96.2	Medium
56	Ferris Hybrid F-11	85.5	85.5	0	22.8	97.7	99.9	96.3	Medium
57	Nichols Hybrid Victory	85.4	85.4	0	24.3	98.0	100.2	96.2	Medium
58	Doubet Hybrid D-25	85.3	85.1	.2	25.1	98.2	100.4	95.8	Medium
59	Illinois Hybrid 101	84.9	84.7	.2	22.9	98.5	100.7	95.4	Medium
60	Producers' Hybrid 909	84.7	84.1	.7	26.0	98.8	101.0	94.7	M-high
61	Producers' Hybrid 1000	84.2	83.9	.4	24.8	96.8	99.0	94.5	Medium
62	Doubet Hybrid D-1	84.1	83.9	.2	24.2	96.3	98.5	94.5	Medium
63	Pfister Hybrid 280	83.9	83.8	.1	23.9	99.3	101.5	94.4	Medium
64	Sieben Hybrid S450	83.7	83.6	.1	21.8	97.0	99.2	94.1	Medium
65	Crow Hybrid 360	82.8	82.6	.2	23.6	97.2	99.3	93.0	Medium
66	Moews Hybrid 14	81.6	81.4	.2	25.8	98.8	101.0	91.7	Medium
67	Crow Hybrid 514(W)	81.1	80.9	.2	21.3	98.5	100.7	91.1	M-high
68	DeKalb Hybrid 404A	80.7	80.5	.2	24.3	95.5	97.6	90.7	Medium
69	Hoosier Crost Hybrid 405	79.0	78.9	.1	24.9	98.5	100.7	88.9	M-low
70	Lowe Hybrid 15	78.4	78.4	0	22.2	96.3	98.5	88.3	Medium
71	Producers' Hybrid 1015	75.4	74.8	.8	20.9	98.3	100.5	84.2	Medium
72	Hoosier Crost Hybrid 112A	72.3	71.9	.5	20.3	97.8	100.0	81.0	Medium
	Average of all entries	89.1	88.8	.4	23.1	97.8	.....	.....	.....

A difference of less than 6.3 bushels between total yields of any two entries in this table is not significant.

Table 6.—CORN BORER DAMAGE: Mt. Morris and Milford, 1944[a]

A difference of less than 4.1 in percentage figures is not significant.

Rank	Entry	Plants broken below ear[a]	Rank	Entry	Plants broken below ear[a]
	Mt. Morris, Northern Illinois				
		perct.			*perct.*
1	Producers' Hybrid 1015	1.3	37	Producers' Hybrid 1020	4.6
2	Nichols Hybrid N-75	1.5	37	Stiegelmeier Hybrid 379	4.6
3	Pfister Hybrid 280	1.6	39	Crow Hybrid 514 (W)	4.7
4	Blackhawk Hybrid 98A	1.8	39	Holmes Utility Hybrid 39	4.7
4	Doubet Hybrid D-25	1.8	41	Funk Hybrid G-38	4.8
6	DeKalb Hybrid 450	1.9	41	Sieben Hybrid S450	4.8
7	Illinois Hybrid 269	2.1	41	Stiegelmeier Hybrid 360	4.8
8	Illinois Hybrid 751	2.2	44	Funk Hybrid G-16	4.9
8	Nichols Hybrid 5A	2.2	44	Morgan Hybrid M105	4.9
8	Pioneer Hybrid 330	2.2	46	Sieben Hybrid S440	5.0
11	Crow Hybrid 432	2.7	47	Funk Hybrid G-12	5.2
12	Illinois Hybrid 1180	2.8	48	Lowe Hybrid 14	5.6
13	Wisconsin Hybrid 645	2.9	49	Holmes Utility Hybrid 49	5.7
13	Nichols Victory Hybrid	2.9	49	Pioneer Hybrid 322	5.7
13	Holmes Utility Hybrid 29	2.9	51	Frey Hybrid 425	5.8
16	Producers' Hybrid 909	3.0	52	Doubet Hybrid D-1	5.9
16	Pfister Hybrid 4897	3.0	53	Ferris Hybrid F-11	6.0
18	Pioneer Hybrid 353A	3.3	54	Funk Hybrid G-42	6.1
18	Pioneer Hybrid 353	3.3	54	Iowealth Hybrid AF11	6.1
20	Nichols Hybrid 202A	3.6	56	Funk Hybrid G-29	6.2
20	Moews Hybrid 14	3.6	57	DeKalb Hybrid 422	6.3
20	Hoosier Crost Hybrid 405	3.6	58	Sieben Hybrid S-350	6.4
23	Moews Hybrid 15	3.7	59	Holmes Utility Hybrid 96	6.5
23	Pioneer Hybrid 341	3.7	59	Lowe Hybrid 15	6.5
25	National Hybrid 114	3.8	61	Nichols Hybrid N-400	6.6
26	Hoosier Crost Hybrid FD4	3.9	62	DeKalb Hybrid 458	6.7
27	Pfister Hybrid 260	4.0	63	DeKalb Hybrid 410	6.8
28	Funk Hybrid G-114	4.1	63	Pioneer Hybrid 340	6.8
28	DeKalb Hybrid 609	4.1	65	DeKalb Hybrid 615	6.9
30	Funk Hybrid G-30	4.2	65	Crow Hybrid 360	6.9
30	Pfister Hybrid 274	4.2	65	Pfister Hybrid 366	6.9
30	Frey Hybrid 410	4.2	68	Producers' Hybrid 1010	7.1
33	Illinois Hybrid 101	4.3	68	Hoosier Crost Hybrid 112A	7.1
34	Illinois Hybrid 1091A	4.4	70	Hoosier Crost Hybrid F-138	8.0
34	Farmcraft Hybrid 42	4.4	71	Producers' Hybrid 1000	8.8
36	Blackhawk Hybrid 111	4.5	72	DeKalb Hybrid 404A	9.5
				Average of all entries	4.6

A difference of less than 5.5 in percentage figures is not significant.

	Milford, North-Central Illinois				
1	Pfister Hybrid 1897	4.7	29	Lowe Hybrid 560	8.9
2	Producers' Hybrid 1040	5.2	29	Holmes Utility Hybrid 29	8.9
3	Crow Hybrid 608	5.4	31	Stiegelmeier Hybrid 360	9.0
4	Pfister Hybrid 280	5.5	31	Funk Hybrid G-37	9.0
5	Morton Hybrid M-380	5.7	33	Crow Hybrid 633	9.3
6	Crow Hybrid 607	6.3	34	Hoosier Crost Hybrid F-168	9.4
6	Stiegelmeier Hybrid 379	6.3	35	Pioneer Hybrid 300	9.7
6	Miller Hybrid 1050(W)	6.3	36	Pioneer Hybrid 336	9.8
9	Moews Hybrid 550	6.8	37	DeKalb Hybrid 800A	9.9
9	Pfister Hybrid 260	6.8	37	Doubet Hybrid D-47	9.9
11	Seeber Hybrid 11A	6.9	37	Holmes Utility Hybrid 96	9.9
12	Funk Hybrid G-71	7.0	40	Crow Hybrid 607(W)	10.0
13	Illinois Hybrid 1091A	7.4	41	Miller Hybrid 26	10.2
13	Stiegelmeier Hybrid 380	7.4	42	Illinois Hybrid 21	10.4
15	Pfister Hybrid 5897	7.5	43	Frey Hybrid 644	10.5
16	Pfister Hybrid 4817	7.7	43	DeKalb Hybrid 628A	10.5
17	Illinois Hybrid 972-1	8.0	45	Pioneer Hybrid 332	10.6
17	Pfister Hybrid 360	8.0	46	Frey Hybrid 645	10.7
17	Hoosier Crost Hybrid F-166	8.0	47	Holmes Utility Hybrid 39	10.9
20	DeKalb Hybrid 840	8.1	48	DeKalb Hybrid 817A	11.0
21	Pioneer Hybrid 304	8.2	49	U. S. Hybrid 35	11.1
22	Ferris Hybrid F-31	8.4	50	Hoosier Crost Hybrid 840	11.4
22	Frey Hybrid 692	8.4	51	Funk Hybrid G-94	11.5
24	DeKalb Hybrid 847	8.5	52	Hoosier Crost Hybrid F-169	11.6
25	Pfister Hybrid 380	8.6	53	Producers' Hybrid 1030	11.7
25	Kelley Hybrid K-99	8.6	53	Farmcraft Hybrid 89	11.7
27	Doubet Hybrid D-42	8.7	55	Lowe Hybrid 520	11.8
27	Producers' Hybrid 909	8.7			

[a]Includes only those plants broken below the ear at point of damage by the borer (*Pryausta nubilalis* (Hbn.)).

(Table is concluded on next page)

Table 6.—Corn Borer Damage—concluded

Rank	Entry	Plants broken below ear[a]	Rank	Entry	Plants broken below ear[a]
		Milford—concluded			
		perct.			*perct.*
56	Farmcraft Hybrid 47	12.3	65	DeKalb Hybrid 816	14.5
57	Hoosier Crost Hybrid 668	12.4	65	U. S. Hybrid 13	14.5
57	Null Hybrid N-54	12.4	67	Iowealth Hybrid 25	14.8
59	Kelley Hybrid K-374	12.5	68	Funk Hybrid G-86	15.8
60	DeKalb Hybrid 720(W)	12.8	69	Funk Hybrid G-169	16.2
61	Illinois Hybrid 201	13.1	69	Sibley Hybrid 753B-1	17.8
62	National Hybrid 125	13.4	71	Miller Hybrid 201	19.2
63	Funk Hybrid G-53	13.5	72	Producers' Hybrid 777	19.3
64	Pioneer Hybrid 313D	13.6		Average of all entries	10.2

(See opposite page for statement of significance.)

Table 7.—NORTHERN ILLINOIS: Mt. Morris Summary, 1943 and 1944

Rank	Entry	Acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest	Erect plants	Rating for—		Comparative height of ear
		Total	Sound				Erect plants	Sound yield	
		bu.	*bu.*	*perct.*	*perct.*	*perct.*	*perct.*	*perct.*	
1	Nichols Hybrid 5A	94.3	93.8	.5	24.3	97.7	100.5	110.5	Medium
2	Funk Hybrid G-30	92.4	91.2	1.3	26.1	98.2	101.0	107.4	Medium
3	Pfister Hybrid 4897	91.6	91.5	.1	22.4	97.3	100.1	107.8	Medium
4	DeKalb Hybrid 458	90.2	90.0	.2	23.5	97.8	100.6	106.0	M-low
5	Pfister Hybrid 366	90.0	89.8	.3	24.1	94.2	96.9	105.8	M-high
6	Illinois Hybrid 751	89.5	89.2	.2	24.9	99.0	101.9	105.1	Medium
7	DeKalb Hybrid 615	88.9	88.5	.6	23.4	96.3	99.1	104.2	Medium
8	Funk Hybrid G-114	88.7	88.4	.4	25.9	96.3	99.1	104.1	Medium
9	Farmcraft Hybrid 42	87.9	86.9	1.2	25.7	97.5	100.3	102.4	Medium
10	Pioneer Hybrid 341	87.6	87.3	.4	24.0	98.2	101.0	102.8	Medium
11	Pfister Hybrid 260	87.3	87.3	0	24.9	96.9	99.7	102.8	Medium
11	Producers' Hybrid 1010	87.3	86.9	.5	25.0	96.4	99.2	102.4	Medium
13	Hoosier Crost Hybrid F-138	87.2	86.2	1.2	23.5	93.8	96.5	101.5	Medium
14	DeKalb Hybrid 422	87.0	86.7	.3	24.5	96.0	98.8	102.1	Medium
15	Pioneer Hybrid 330	86.3	85.9	.6	24.1	97.9	100.7	101.2	Medium
16	Pfister Hybrid 274	86.1	85.9	.3	23.5	97.0	99.8	101.2	Medium
17	Pioneer Hybrid 340	86.0	85.7	.4	23.8	97.7	100.5	100.9	Medium
18	Producers' Hybrid 909	85.4	84.6	1.0	27.3	98.1	100.9	99.6	M-high
19	Illinois Hybrid 1180	85.3	85.1	.2	23.0	97.8	100.6	100.2	M-low
19	Crow Hybrid 360	85.3	84.9	.5	26.1	95.5	98.3	100.0	M-high
21	Pioneer Hybrid 322	85.2	84.0	1.4	22.3	98.0	100.8	98.9	Medium
22	Illinois Hybrid 101	85.1	84.9	.3	23.7	96.3	99.1	100.0	Medium
23	DeKalb Hybrid 450	84.9	84.6	.5	25.2	97.8	100.6	99.6	M-low
24	Nichols Hybrid 202A	84.8	84.7	.2	23.3	98.5	101.3	99.8	M-low
25	Nichols Hybrid Victory	84.5	84.4	.1	25.1	98.6	101.4	99.4	Medium
26	Funk Hybrid G-29	83.9	83.3	.7	27.7	96.9	99.7	98.1	M-low
27	Pfister Hybrid 280	83.8	83.4	.5	26.5	97.7	100.5	98.2	Medium
28	DeKalb Hybrid 404A	83.5	83.2	.3	24.6	95.8	98.6	98.0	Medium
29	Doubet Hybrid D-1	83.4	83.2	.2	24.8	97.3	100.1	98.0	Medium
30	Producers' Hybrid 1020	83.2	83.1	.2	23.0	98.3	101.1	97.9	M-low
30	DeKalb Hybrid 410	83.2	82.8	.5	22.8	97.1	99.9	97.5	M-low
32	Pioneer Hybrid 353A	82.9	82.8	.2	22.1	97.3	100.1	97.5	Medium
33	Funk Hybrid G-16	82.7	82.3	.5	24.4	96.9	99.7	96.9	M-low
34	Crow Hybrid 432	82.2	81.3	1.2	25.4	96.6	99.4	95.8	Medium
35	Moews Hybrid 14	82.1	81.8	.4	26.4	98.7	101.8	96.3	M-low
36	Lowe Hybrid 14	82.1	81.5	.7	25.7	97.0	99.8	96.0	Medium
37	Moews Hybrid 15	81.8	81.7	.2	22.2	96.6	99.4	96.2	Medium
38	Doubet Hybrid D-25	81.6	80.1	1.9	27.7	98.5	101.3	94.3	Medium
39	Crow Hybrid 514(W)	78.1	77.6	.7	22.5	96.2	99.0	91.4	M-high
40	Hoosier Crost Hybrid 405	77.4	77.2	.2	25.7	97.5	100.3	90.9	M-low
41	Lowe Hybrid 15	77.1	76.9	.4	24.0	97.0	99.8	90.6	M-low
	Average of all entries	85.3	84.9	.524	24.5	97.2	.....	.....	.....

A difference of less than 5.7 bushels between total yields of any two entries in this table is not significant.

Table 8.—WEST NORTH-CENTRAL ILLINOIS: Galesburg, 1944

Rank	Entry	Acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest	Erect plants	Rating for—		Comparative height of ear
		Total	Sound				Erect plants	Sound yield	
		bu.	*bu.*	*perct.*	*perct.*	*perct.*	*perct.*	*perct.*	
1	Stewart Hybrid S-11	101.2	100.1	1.1	17.4	98.8	99.5	112.6	M-high
2	Pioneer Hybrid 304	100.1	96.5	3.6	19.7	98.3	99.0	108.5	Medium
3	Hoosier Crost Hybrid F-170	99.6	96.0	3.6	17.6	99.7	100.4	108.0	Medium
4	Stiegelmeier Hybrid 102	98.1	97.7	.4	17.7	99.7	100.4	109.9	Medium
5	Holmes Utility Hybrid 96	98.0	95.4	2.7	18.0	98.3	99.0	107.3	M-high
6	U. S. Hybrid 13	97.7	97.4	.3	19.4	100.0	100.7	109.6	M-high
7	DeKalb Hybrid 800A	97.2	96.9	.3	18.0	99.3	100.0	109.0	Medium
8	Producers' Hybrid 1040	97.0	95.9	1.1	17.3	99.2	99.9	107.9	Medium
9	U. S. Hybrid 44	96.8	92.3	4.7	18.0	99.3	100.0	103.8	Medium
10	Morgan Hybrid M-546	96.6	93.7	3.0	19.2	100.0	100.7	105.4	M-high
11	Morton Hybrid M-12	96.4	90.9	5.7	17.7	100.0	100.7	102.2	Medium
12	Funk Hybrid G-169	96.3	94.8	1.6	17.6	99.7	100.4	106.6	Medium
13	Frey Hybrid 692	96.0	94.1	2.0	18.3	98.3	99.0	105.8	Medium
14	DeKalb Hybrid 816	95.8	93.4	2.5	17.9	100.0	100.7	105.1	M-high
15	Holmes Utility Hybrid 29	95.3	94.2	1.2	18.5	99.3	100.0	106.0	Medium
16	Funk Hybrid G-86	95.2	92.3	3.0	17.9	97.7	98.4	103.8	Medium
17	Crow Hybrid 607	94.7	92.4	2.4	19.3	99.2	99.9	103.9	Medium
18	Funk Hybrid G-71	94.6	94.0	.6	16.7	100.0	100.7	105.7	Medium
19	DeKalb Hybrid 827	94.5	92.8	1.8	17.6	99.7	100.3	104.4	Medium
20	Pfister Hybrid 5897	94.3	93.8	.5	17.5	100.0	100.7	105.5	Medium
20	Farmcraft Hybrid 47	94.3	89.5	5.1	18.0	98.0	98.7	100.7	Medium
22	Doubet Hybrid D-72	93.9	85.1	9.4	17.5	99.7	100.4	95.7	Medium
23	Frey Hybrid 645	93.8	93.5	.3	19.0	99.7	100.4	105.2	Medium
24	Holmes Utility Hybrid 39	93.6	92.3	1.4	19.2	100.0	100.7	103.8	Medium
25	Appl Hybrid A-336	93.4	90.8	2.8	17.7	99.7	100.4	102.1	M-high
26	Pioneer Hybrid 313D	93.3	93.0	.3	19.8	97.2	97.9	104.6	Medium
27	DeKalb Hybrid 628A	93.2	92.6	.6	18.2	98.8	99.5	104.2	Medium
27	Illinois Hybrid 1091A	93.2	88.4	5.2	18.3	100.0	100.7	99.4	M-low
29	DeKalb Hybrid 847	92.9	86.7	6.7	17.8	100.0	100.7	97.5	Medium
30	U. S. Hybrid 35	92.7	92.6	.1	17.8	99.7	100.4	104.2	Medium
30	Doubet Hybrid D-42	92.7	90.1	2.8	18.5	100.0	100.7	101.3	Medium
30	Pioneer Hybrid 334	92.7	89.6	3.3	18.3	99.3	100.0	100.8	Medium
33	DeKalb Hybrid 817A	92.4	87.6	5.2	19.0	99.7	100.4	98.5	Medium
34	Illinois Hybrid 246	92.3	89.0	3.6	18.1	100.0	100.7	100.1	M-high
35	Producers' Hybrid FCXX	92.2	90.7	1.6	17.5	98.0	98.7	102.0	Medium
36	Frey Hybrid 644	92.1	87.0	5.5	19.3	99.7	100.4	97.9	M-high
37	Funk Hybrid G-53	91.8	90.5	1.4	18.1	97.7	98.4	101.8	Medium
38	Stiegelmeier Hybrid 380	91.7	87.9	4.1	17.9	100.0	100.7	98.9	M-low
39	Null Hybrid N-16	91.1	89.6	1.7	17.8	99.7	100.4	100.8	Medium
40	Ferris Hybrid F-14	90.8	87.3	3.8	17.9	98.3	99.0	98.2	Medium
41	Funk Hybrid G-32	90.6	88.3	2.5	18.3	99.7	100.4	99.3	Medium
42	Moews Hybrid 523	90.5	86.8	4.1	18.0	99.2	99.9	97.6	Medium
43	Illinois Hybrid 21	90.4	87.5	3.2	18.3	99.7	100.4	98.4	Medium
44	National Hybrid 125	90.2	89.0	1.3	18.3	100.0	100.7	100.1	Medium
44	Producers' Hybrid 1000	90.2	85.4	5.3	18.2	100.0	100.7	96.1	Medium
46	Illinois Hybrid 201	90.0	89.9	.1	17.2	100.0	100.7	101.1	Medium
46	Hoosier Crost Hybrid 668	90.0	88.2	2.0	17.6	100.0	100.7	99.2	Medium
48	Pfister Hybrid 1897	89.8	88.8	1.1	18.0	99.3	100.0	99.9	Medium
49	Pfister Hybrid 360	89.7	87.9	2.0	19.1	98.0	98.7	98.9	Medium
50	Crow Hybrid 633	89.5	84.5	5.6	18.6	99.5	100.2	95.1	Medium
51	Kelly Hybrid K-374	89.4	84.4	5.6	17.0	99.3	100.0	94.9	Medium
52	Pioneer Hybrid 307	88.9	87.3	1.8	16.8	99.3	100.0	98.2	Medium
53	Lowe Hybrid 520	88.8	87.6	1.4	18.7	98.3	99.0	98.5	Medium
54	Pfister Hybrid 380	88.6	87.2	1.6	18.9	100.0	100.7	98.1	M-low
55	Funk Hybrid G-37	88.2	87.8	.4	17.7	100.0	100.7	98.8	Medium
56	Stiegelmeier Hybrid 379	87.8	83.9	4.4	18.0	98.3	99.0	94.4	Medium
57	Iowealth Hybrid 25	87.5	85.4	2.4	17.9	100.0	100.7	96.1	Medium
58	Crow Hybrid 607(W)	86.8	84.9	2.2	19.6	98.0	98.7	95.5	M-high
59	Pfister Hybrid 4897	86.4	86.0	.5	17.6	100.0	100.7	96.7	Medium
59	Pioneer Hybrid 339	86.4	85.1	1.5	17.5	100.0	100.7	95.7	Medium
59	Stiegelmeier Hybrid 360	86.4	82.8	4.2	16.3	98.0	98.7	93.1	Medium
62	DeKalb Hybrid 620	86.3	82.8	4.1	19.7	98.5	99.2	93.1	M-low
63	Moews Hybrid 550	86.0	84.8	1.4	17.2	97.2	97.9	95.4	Medium
64	Morgan Hybrid M52	85.8	85.3	.6	18.9	99.3	100.0	96.0	Medium
65	Farmcraft Hybrid 42	84.9	78.0	8.1	17.9	99.8	100.5	87.7	M-low
66	Pioneer Hybrid 333	84.4	80.4	4.7	18.1	99.7	100.4	90.4	Medium
67	Pfister Hybrid 280	84.2	82.4	2.1	18.8	99.7	100.4	92.7	Medium
68	Producers' Hybrid 1030	83.2	82.9	.4	19.6	99.2	99.9	93.3	Medium
69	Kelly Hybrid K-42	82.9	81.2	2.0	15.6	99.7	100.4	91.3	M-low
70	Stiegelmeier Hybrid 6911	81.5	81.1	.5	17.2	99.7	100.4	91.2	Medium
71	National Hybrid 118	80.8	80.2	.8	16.6	99.0	99.7	90.2	Medium
72	Lowe Hybrid 560	77.5	75.6	2.5	19.0	100.0	100.7	85.0	Medium
	Average of all entries	91.2	88.9	2.6	18.1	99.3	.....	.....	.....

A difference of less than 7.7 bushels between total yields of any two entries in this table is not significant.

Table 9.—WEST NORTH-CENTRAL ILLINOIS: Galesburg Summary, 1943 and 1944

Rank	Entry	Acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest	Erect plants	Rating for—		Comparative height of ear
		Total	Sound				Erect plants	Sound yield	
		bu.	*bu.*	*perct.*	*perct.*	*perct.*	*perct.*	*perct.*	
1	DeKalb Hybrid 800A	108.6	105.2	2.9	20.1	97.2	101.0	104.7	Medium
2	Morgan Hybrid M-546	108.4	106.4	2.0	20.7	98.7	102.6	105.9	M-high
3	Producers' Hybrid 1040	108.3	107.2	1.0	19.8	95.3	99.1	106.7	M-high
4	Pfister Hybrid 5897	107.3	106.8	.4	19.0	96.0	99.8	106.3	Medium
5	U. S. Hybrid 13	107.2	106.5	.6	21.4	98.3	102.2	106.0	M-high
6	Funk Hybrid G-169	106.8	105.5	1.3	19.9	97.4	101.2	105.0	M-high
7	Crow Hybrid 633	106.6	103.1	3.6	19.5	95.3	99.1	102.6	Medium
8	DeKalb Hybrid 827	106.1	103.1	2.7	20.2	96.5	100.3	102.6	M-high
9	Illinois Hybrid 246	105.8	102.9	2.8	20.3	96.4	100.2	102.4	M-high
10	Producers' Hybrid 1000	105.7	103.2	2.8	20.3	98.5	102.4	102.7	M-high
11	DeKalb Hybrid 816	105.5	103.2	2.3	20.3	97.5	101.4	102.7	M-high
12	Holmes Utility Hybrid 29	105.1	103.9	1.2	20.1	98.0	101.9	103.4	Medium
13	DeKalb Hybrid 628A	105.0	103.4	1.5	20.3	94.9	98.6	102.9	M-high
13	Pioneer Hybrid 334	105.0	103.0	2.1	19.2	96.0	99.8	102.5	Medium
15	Doubet Hybrid D-42	104.9	102.9	2.0	20.5	96.9	100.7	102.4	Medium
16	DeKalb Hybrid 817A	104.7	101.2	3.6	20.7	98.9	102.8	100.7	Medium
17	Funk Hybrid G-32	104.6	102.5	2.1	19.7	97.9	101.8	102.0	Medium
17	Appl Hybrid A-336	104.6	101.3	3.1	20.4	96.6	100.4	100.8	M-high
19	National Hybrid 125	104.5	103.6	1.0	19.8	96.9	100.7	103.1	Medium
20	Crow Hybrid 607	103.9	100.5	3.2	21.2	94.0	97.7	100.0	M-high
21	Doubet Hybrid D-72	103.5	98.6	5.1	19.6	96.4	100.2	98.1	Medium
22	Farmcraft Hybrid 47	103.4	98.6	4.7	19.2	92.0	95.6	98.1	Medium
23	Funk Hybrid G-37	103.1	102.3	.7	19.1	99.2	103.1	101.8	Medium
24	Illinois Hybrid 21	103.0	101.1	2.0	19.8	98.2	102.1	100.6	Medium
25	DeKalb Hybrid 680	102.9	100.6	2.5	21.2	93.6	97.3	100.1	M-low
26	Pioneer Hybrid 339	102.1	100.0	2.0	19.3	98.3	102.2	99.5	Medium
27	Null Hybrid N-16	101.7	100.6	1.1	20.1	98.3	102.2	100.1	M-high
27	Stiegelmeier Hybrid 380	101.7	98.9	2.8	19.8	94.3	98.0	98.4	M-low
29	Producers' Hybrid FCXX	101.5	100.1	1.4	20.7	96.4	100.2	99.6	M-high
30	Pfister Hybrid 380	101.3	100.0	1.3	20.3	97.8	101.7	99.5	M-low
31	Hoosier Crost Hybrid 668	101.2	98.9	2.2	20.3	98.3	102.2	98.4	Medium
32	Illinois Hybrid 201	101.0	100.8	.2	20.1	97.1	100.9	100.3	M-high
33	Pfister Hybrid 1897	100.3	99.3	1.0	19.2	96.5	100.3	98.8	Medium
34	Iowealth Hybrid 25	100.2	98.9	1.4	20.1	96.4	100.2	98.4	Medium
35	Moews Hybrid 523	99.9	97.5	2.6	19.5	95.9	99.7	97.0	M-high
36	Morgan Hybrid M-52	99.6	99.1	.5	19.8	92.9	96.6	98.6	Medium
37	Lowe Hybrid 520	98.8	96.3	2.4	21.3	95.7	99.5	95.8	Medium
38	Farmcraft Hybrid 42	98.7	95.0	4.3	19.8	99.2	103.1	94.5	M-low
39	Pfister Hybrid 360	98.5	96.9	1.7	19.8	92.3	95.9	96.4	Medium
40	U. S. Hybrid 44	98.3	95.4	3.0	19.5	90.9	94.5	94.9	Medium
41	Stiegelmeier Hybrid 360	98.0	95.9	2.4	19.3	88.8	91.9	95.4	Medium
42	Moews Hybrid 550	97.9	96.5	1.5	19.1	94.6	98.3	96.0	Medium
43	Producers' Hybrid 1030	96.7	95.9	.8	21.0	95.5	99.3	95.4	Medium
44	Pioneer Hybrid 333	95.3	92.8	2.9	19.9	98.1	102.0	92.3	Medium
45	Lowe Hybrid 560	91.1	89.0	2.4	20.5	96.3	100.1	88.5	Medium
	Average of all entries	102.6	100.5	2.1	20.0	96.2	.....	.....	.....

A difference of less than 4.4 bushels between total yields of any two entries in this table is not significant.

Table 10.—EAST NORTH-CENTRAL ILLINOIS: Milford, 1944

Rank	Entry	Acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest	Erect plants	Rating for—		Comparative height of ear
		Total	Sound				Erect plants	Sound yield	
		bu.	*bu.*	*perct.*	*perct.*	*perct.*	*perct.*	*perct.*	
1	DeKalb Hybrid 840	104.3	103.7	.6	20.0	91.5	100.9	118.9	Medium
2	Miller Hybrid 201	102.4	100.6	1.8	21.0	86.2	95.0	115.4	Medium
3	Ferris Hybrid F-31	97.8	96.5	1.3	18.5	95.5	105.3	110.7	Medium
4	Holmes Utility Hybrid 39	97.6	96.7	.9	22.4	94.3	104.0	110.9	Medium
4	Producers' Hybrid 1030	97.6	95.0	2.7	20.9	93.3	102.9	108.9	Medium
6	Frey Hybrid 692	96.2	95.4	.8	21.0	87.2	96.1	109.4	Medium
7	Seeber Hybrid 11A	94.8	93.9	.9	21.4	96.3	106.2	107.7	M-high
8	Funk Hybrid G-53	94.6	92.5	2.2	19.9	85.8	94.6	106.1	Medium
9	Funk Hybrid G-94	94.5	93.8	.7	22.8	92.5	102.0	107.6	M-high
9	DeKalb Hybrid 800A	94.5	92.7	1.9	20.8	93.5	103.1	106.3	M-high
11	DeKalb Hybrid 628A	94.3	93.1	1.3	20.6	92.2	101.7	106.8	Medium
12	Illinois Hybrid 201	94.1	93.3	.9	20.8	87.7	96.7	107.0	M-high
13	Pioneer Hybrid 304	93.8	93.2	.6	21.6	92.8	102.3	106.9	Medium
14	Holmes Utility Hybrid 29	93.5	92.4	1.2	20.6	95.8	105.6	106.0	Medium
15	Pfister Hybrid 380	93.2	92.6	.6	21.2	90.3	99.6	106.2	Medium
16	Pfister Hybrid 5897	93.0	92.5	.5	20.4	92.0	101.4	106.1	Medium
17	Funk Hybrid G-71	92.9	92.7	.2	19.8	93.8	103.4	106.3	Medium
18	Funk Hybrid G-169	92.8	92.2	.7	20.1	85.8	94.6	105.7	M-high
19	Hoosier Crost Hybrid 840	92.7	92.1	.6	21.3	94.3	104.0	105.6	M-high
20	Stiegelmeier Hybrid 380	92.4	90.5	2.1	20.1	88.0	97.0	103.8	Medium
21	Pioneer Hybrid 300	92.3	91.9	.4	22.2	93.3	102.9	105.4	Medium
22	Frey Hybrid 644	92.1	90.8	1.4	22.4	91.5	100.9	104.1	M-high
23	Illinois Hybrid 972-1	91.7	91.1	.6	20.9	93.8	103.4	104.5	M-high
24	Stiegelmeier Hybrid 360	91.2	90.7	.6	18.9	89.2	98.3	104.0	Medium
25	Producers' Hybrid 1040	91.0	90.4	.7	21.4	94.7	104.4	103.7	Medium
26	Crow Hybrid 607	90.7	90.4	.3	22.1	88.3	97.4	103.7	Medium
27	Funk Hybrid G-37	90.5	88.9	1.8	20.6	92.5	102.0	101.9	Medium
28	Morton Hybrid M-380	90.2	89.7	.6	21.4	93.3	102.9	102.9	Medium
29	U. S. Hybrid 13	89.8	87.9	2.1	21.8	87.0	95.9	100.8	M-high
30	Frey Hybrid 645	89.7	89.5	.2	21.3	88.5	97.6	102.6	Medium
31	Holmes Utility Hybrid 96	89.5	89.0	.6	20.1	84.2	92.8	102.1	M-high
32	Funk Hybrid G-86	89.3	88.0	1.4	20.3	88.3	97.4	100.9	Medium
33	Farmcraft Hybrid 89	88.9	88.4	.6	20.3	93.5	103.1	101.4	Medium
33	Kelly Hybrid K-374	88.9	87.3	1.8	19.3	88.3	97.4	100.1	Medium
35	Null Hybrid N-54	88.8	88.1	.8	21.6	94.5	104.2	101.0	M-high
36	Pfister Hybrid 4817	88.6	88.1	.6	20.3	94.2	103.9	101.0	Medium
37	Doubet Hybrid D-42	88.5	88.3	.2	21.3	93.3	102.9	101.3	Medium
38	DeKalb Hybrid 816	88.2	86.9	1.5	23.1	90.3	99.6	99.7	M-high
39	Illinois Hybrid 21	88.1	85.1	3.4	21.7	92.2	101.7	97.6	Medium
40	Pioneer Hybrid 336	88.0	87.6	.5	20.5	92.2	101.7	100.5	Medium
40	National Hybrid 125	88.0	87.6	.5	19.5	87.2	96.1	100.5	Medium
42	DeKalb Hybrid 847	87.6	86.8	.9	21.7	90.7	100.0	99.5	Medium
43	Doubet Hybrid D-47	87.2	86.5	.8	22.5	91.5	100.9	99.2	Medium
44	Pioneer Hybrid 332	87.0	86.6	.5	22.7	94.2	103.9	99.3	M-high
44	Illinois Hybrid 1091A	87.0	86.5	.6	20.4	90.7	100.0	99.2	Medium
44	Crow Hybrid 633	87.0	85.1	2.2	22.5	90.5	99.8	97.6	Medium
47	Pioneer Hybrid 313D	86.9	86.1	.9	22.4	90.2	99.4	98.7	Medium
48	DeKalb Hybrid 817A	86.8	85.9	1.0	21.7	90.8	100.1	98.5	Medium
48	Crow Hybrid 608	86.8	85.6	1.4	22.5	95.0	104.7	98.2	Medium
50	Pfister Hybrid 1897	86.7	85.5	1.4	20.9	95.2	105.0	98.1	Medium
51	Farmcraft Hybrid 47	85.5	85.0	.6	20.6	89.5	98.7	97.5	Medium
52	U. S. Hybrid 35	85.1	84.2	1.0	20.6	90.0	99.2	96.6	Medium
53	Kelly Hybrid K-99	84.4	84.1	.4	20.1	94.2	103.9	96.4	M-high
54	Pfister Hybrid 280	84.3	83.8	.6	20.5	89.3	98.5	96.1	Medium
55	Hoosier Crost Hybrid 668	84.1	83.8	.3	24.2	93.2	102.8	96.1	Medium
56	Producers' Hybrid 909	83.7	82.0	2.0	20.6	88.3	97.4	94.0	Medium
57	Sibley Hybrid 753B-1	82.5	81.7	1.0	21.6	89.8	99.0	93.7	Medium
58	Pfister Hybrid 360	82.4	82.2	.3	21.8	88.3	97.4	94.3	Medium
59	Hoosier Crost Hybrid F-169	81.6	81.4	.2	21.0	90.2	99.4	93.3	Medium
60	Pfister Hybrid 260	81.3	80.5	1.0	19.8	91.3	100.7	92.3	Medium
60	Moews Hybrid 550	81.3	80.0	1.6	20.4	92.2	101.7	91.7	Medium
62	Lowe Hybrid 520	81.0	80.2	1.0	22.7	92.0	101.4	92.0	Medium
63	Iowealth Hybrid 25	80.5	80.3	.3	22.0	85.8	94.6	92.1	Medium
64	Stiegelmeier Hybrid 379	80.2	79.7	.6	22.0	91.7	101.1	91.4	Medium
65	Hoosier Crost Hybrid F-168	80.1	79.8	.4	21.3	93.3	102.9	91.5	Medium
66	Miller Hybrid 26	79.2	77.9	1.6	24.8	90.2	99.4	89.3	Medium
67	Producers' Hybrid 777	77.6	77.2	.5	20.3	85.8	94.6	88.5	Medium
68	Miller Hybrid 1050(W)	77.1	76.8	.4	22.8	95.3	105.1	88.1	High
69	Lowe Hybrid 560	75.4	75.1	.4	20.5	87.8	96.8	86.1	Medium
70	Hoosier Crost Hybrid F-166	73.9	72.8	1.5	21.3	95.0	104.7	83.5	Medium
71	DeKalb Hybrid 720(W)	73.7	73.3	.6	23.3	65.8	72.5	84.1	M-high
72	Crow Hybrid 607(W)	70.6	69.7	1.3	23.2	86.2	95.0	79.9	Medium
	Average of all entries	88.0	87.2	1.0	21.2	90.7	.....	.....	.....

A difference of less than 6.9 bushels between total yields of any two entries in this table is not significant.

Table 11.—EAST NORTH-CENTRAL ILLINOIS: Milford Summary, 1943 and 1944

Rank	Entry	Acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest	Erect plants	Rating for—		Comparative height of ear
		Total	Sound				Erect plants	Sound yield	
		bu.	*bu.*	*perct.*	*perct.*	*perct.*	*perct.*	*perct.*	
1	DeKalb Hybrid 840	93.1	91.9	1.4	19.9	92.4	100.1	110.3	Medium
2	Producers' Hybrid 1030	90.5	88.9	1.7	20.5	94.3	102.2	106.7	Medium
3	Holmes Utility Hybrid 39	90.2	89.6	.7	21.1	95.2	103.1	107.6	Medium
4	Funk Hybrid G-94	89.5	88.7	.9	20.9	93.1	100.9	106.5	M-high
5	Null Hybrid N-54	89.4	88.3	1.3	20.6	93.8	101.6	106.0	M-high
5	DeKalb Hybrid 800A	89.4	88.1	1.5	19.9	93.2	101.0	105.8	M-high
7	Seeber Hybrid 11A	89.1	88.1	1.1	20.1	95.4	103.4	105.8	M-high
8	Stiegelmeier Hybrid 380	88.9	87.1	2.1	20.2	91.2	98.8	104.6	M-low
9	Funk Hybrid G-169	88.6	87.8	.9	19.5	88.5	95.9	105.4	M-high
10	DeKalb Hybrid 816	88.0	87.2	.9	21.4	90.8	98.4	104.7	M-high
11	Pfister Hybrid 380	87.9	87.5	.5	20.4	93.6	101.4	105.0	M-low
11	DeKalb Hybrid 628A	87.9	86.9	1.1	21.3	94.6	102.5	104.0	M-high
13	Illinois Hybrid 201	87.6	86.8	1.0	19.8	90.9	98.5	104.2	M-high
14	Pfister Hybrid 4817	86.9	86.5	.5	19.8	93.6	101.4	103.8	Medium
14	Producers' Hybrid 1040	86.9	86.2	.8	21.2	95.4	103.4	103.5	Medium
16	Farmcraft Hybrid 89	86.7	85.5	1.4	19.4	92.3	100.0	102.6	Medium
17	Pfister Hybrid 5897	86.6	86.0	.7	19.2	95.3	103.3	103.2	M-low
18	Illinois Hybrid 972-1[a]	85.5	84.8	.8	20.3	94.7	102.6	101.8	Medium
19	Miller Hybrid 201	85.4	83.7	2.0	20.6	91.8	99.5	100.5	Medium
19	Funk Hybrid G-37	85.4	83.5	2.4	19.6	93.1	100.9	100.2	Medium
21	Crow Hybrid 607	85.2	84.5	.9	20.7	90.3	97.8	101.4	Medium
22	Illinois Hybrid 21	85.1	82.8	2.6	21.0	92.2	99.9	99.4	Medium
23	Doubet Hybrid D-47	84.7	83.7	1.2	20.9	92.8	100.5	100.5	Medium
24	National Hybrid 125	84.5	84.2	.4	19.7	91.7	99.3	101.1	Medium
25	DeKalb Hybrid 817A	84.4	83.1	1.6	20.5	92.7	100.4	99.8	Medium
25	Pioneer Hybrid 332	84.4	83.0	1.7	23.0	92.4	100.1	99.6	M-high
27	Pioneer Hybrid 300	84.3	83.7	.8	22.3	94.7	102.6	100.5	Medium
28	Pioneer Hybrid 336	83.8	83.3	.7	19.4	92.5	100.2	100.0	Medium
28	Pfister Hybrid 280	83.8	82.5	1.6	20.1	92.3	100.0	99.0	M-low
30	Crow Hybrid 633	83.6	82.4	1.4	21.3	92.4	100.1	98.9	Medium
31	Stiegelmeier Hybrid 360	83.5	83.0	.6	19.1	88.9	96.3	99.6	Medium
32	U. S. Hybrid 13	83.4	81.9	1.9	21.2	89.8	97.3	98.3	Medium
33	U. S. Hybrid 35	83.1	82.3	.9	20.7	92.3	100.0	98.8	Medium
34	DeKalb Hybrid 847	82.9	81.2	2.1	21.2	91.4	99.0	97.5	Medium
35	Pioneer Hybrid 313D	81.7	81.1	.8	21.7	91.9	99.6	97.4	Medium
36	Sibley Hybrid 753B-1[b]	81.3	79.9	1.8	20.0	92.6	100.3	95.9	Medium
37	Crow Hybrid 608	80.9	79.6	1.6	20.6	94.2	102.1	95.6	Medium
38	Hoosier Crost Hybrid 668	79.9	78.7	1.6	22.1	93.0	100.8	94.5	Medium
39	Pfister Hybrid 260	79.6	79.1	.7	19.4	93.0	100.8	95.0	M-low
39	Lowe Hybrid 520	79.6	78.9	1.0	21.2	94.5	102.0	94.7	Medium
41	Hoosier Crost Hybrid F-169	79.3	78.9	.5	19.7	92.3	100.0	94.7	Medium
42	Iowealth Hybrid 25	78.7	78.5	.3	20.6	89.7	97.2	94.2	M-high
43	Farmcraft Hybrid 47	78.2	76.4	2.5	19.6	92.6	100.3	91.7	M-low
44	Lowe Hybrid 560	76.8	76.3	.7	20.0	91.4	99.0	91.6	Medium
45	Pfister Hybrid 360	75.8	75.7	.2	20.4	91.5	99.1	90.9	M-low
46	DeKalb Hybrid 720(W)	74.7	74.4	.5	22.6	78.3	84.8	89.3	M-high
47	Miller Hybrid 1050(W)	74.4	72.8	2.3	22.0	94.3	102.2	87.4	High
	Average of all entries	84.3	83.3	1.2	20.6	92.3	.....	.....	.....

[a]This entry in the 1943 tests was Illinois Hybrid 972. [b]This entry in the 1943 tests was Sibley Hybrid 753B.

A difference of less than 5.5 bushels between total yields of any two entries in this table is not significant.

Table 12.—SOUTH-CENTRAL ILLINOIS: Sullivan, 1944

Rank	Entry	Acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest	Erect plants	Rating for—		Comparative height of ear
		Total	Sound				Erect plants	Sound yield	
		bu.	*bu.*	*perct.*	*perct.*	*perct.*	*perct.*	*perct.*	
1	Funk Hybrid G-80	105.3	104.2	1.0	20.7	85.8	111.7	114.9	M-high
2	Funk Hybrid G-137	105.1	104.7	.4	19.8	82.5	107.4	115.4	M-high
3	Miller Hybrid 1050(W)	103.3	102.9	.4	18.9	73.3	95.4	113.5	High
4	Funk Hybrid G-515(W)	101.3	100.6	.7	19.5	58.3	75.9	110.9	High
5	Appl Hybrid A-128	99.8	99.7	.1	17.3	82.2	107.0	109.9	M-high
6	Henley-Whisnand Hybrid 941(W)	99.0	97.4	1.6	18.5	64.2	83.6	107.4	M-high
7	Producers' Hybrid 1050	98.9	98.8	.1	16.6	75.8	98.7	108.9	Medium
7	Morgan Hybrid M-546	98.9	98.6	.3	15.5	82.5	107.4	108.7	Medium
9	Henley-Whisnand Hybrid 917(W)	98.7	98.5	.2	18.4	56.7	73.8	108.6	M-high
10	Funk Hybrid G-104	97.2	97.0	.2	15.2	85.8	111.7	106.9	Medium
11	Crow Hybrid 607	96.6	95.5	1.1	17.3	77.2	100.5	105.3	Medium
12	Henley-Whisnand Hybrid 901(W)	96.3	96.2	.1	18.1	66.7	86.8	106.1	M-high
13	Illinois Hybrid 200	96.0	94.6	1.5	17.3	71.7	93.4	104.3	Medium
14	Appl Hybrid A-336	95.6	94.8	.8	15.8	76.7	99.9	104.5	Medium
15	Funk Hybrid G-94	95.2	94.4	.8	15.5	77.5	100.9	104.1	M-low
16	Illinois Hybrid 201	95.1	94.6	.5	14.6	80.8	105.2	104.3	Medium
17	Pioneer Hybrid 304	94.9	94.2	.7	17.0	80.0	104.2	103.9	M-low
18	Illinois Hybrid 972-1	94.6	92.0	2.8	14.7	83.3	108.5	101.4	M-low
19	Funk Hybrid G-96	93.8	93.8	0	16.5	80.8	105.2	103.4	Medium
19	Hoosier Crost Hybrid 505(W)	93.8	91.5	2.4	17.5	68.3	88.9	100.9	M-high
21	U. S. Hybrid 13	93.7	92.8	1.3	15.1	83.3	108.5	102.3	Medium
21	Pioneer Hybrid 332	93.7	91.2	2.7	17.0	76.7	99.9	100.6	Medium
23	Producers' Hybrid 1040	93.3	93.3	0	14.8	87.5	113.9	102.9	Medium
24	Henley-Whisnand Hybrid 831	92.3	92.2	.1	14.9	73.3	95.4	101.7	Medium
25	Hoosier Crost Hybrid 840	92.1	91.9	.2	16.7	80.8	105.2	101.3	Medium
26	Stiegelmeier Hybrid 102	92.0	91.8	.2	14.6	82.5	107.4	101.2	M-low
27	Illinois Hybrid 247	91.5	90.8	.8	17.0	74.2	96.6	100.1	M-high
28	Pfister Hybrid 1897	91.0	89.3	1.9	15.3	90.3	117.6	98.5	Medium
29	DeKalb Hybrid 835	90.9	90.5	.4	15.1	86.7	112.9	99.8	M-low
29	Hoosier Crost Hybrid 707(W)	90.9	90.4	.5	18.4	69.2	90.1	99.7	M-high
31	Lowe Hybrid 840	90.7	90.7	0	18.2	80.0	104.2	100.0	Medium
31	Funk Hybrid G-169	90.7	90.3	.4	14.8	82.5	107.4	99.6	Medium
33	Null Hybrid N-77	90.4	88.0	2.7	17.0	56.7	73.8	97.0	M-high
34	Pfister Hybrid 1823	90.3	88.9	1.6	17.3	63.3	82.4	98.0	Medium
35	DeKalb Hybrid 816	90.1	89.8	.3	17.3	81.3	105.9	99.0	Medium
36	Illinois Hybrid 246	90.0	89.5	.6	16.2	74.2	96.6	98.7	Medium
37	Farmcraft Hybrid 81	89.7	89.3	.4	14.4	81.7	106.4	98.5	M-low
38	Illinois Hybrid 501 (Ponder)	89.5	87.6	2.1	16.8	74.2	96.6	96.6	Medium
39	DeKalb Hybrid 888	89.3	85.5	4.2	18.1	58.3	75.9	94.3	Medium
40	Producers' Hybrid 1000	88.9	88.7	.2	14.1	81.7	106.4	97.8	Medium
41	Crow Hybrid 805	88.8	87.6	1.4	15.5	79.2	103.1	96.6	Medium
42	Pfister Hybrid 164	88.7	88.0	.8	15.8	88.0	114.6	97.0	Medium
43	Lowe Hybrid 855(W)	88.2	87.8	.4	19.6	63.3	82.4	96.8	M-high
43	Iowealth Hybrid 29A	88.2	87.7	.6	16.0	85.8	111.7	96.7	Medium
45	Illinois Hybrid 21	88.0	85.2	3.2	16.8	92.5	120.4	93.9	Medium
46	Crow Hybrid 608	87.9	87.6	.3	14.9	87.5	113.9	96.6	M-low
47	DeKalb Hybrid 922(W)	86.8	86.3	.6	18.9	77.5	100.9	95.1	M-high
48	Pioneer Hybrid 313D	86.6	86.4	.2	16.2	67.0	87.2	95.3	Medium
49	Hoosier Crost Hybrid 746	86.5	86.1	.5	16.0	86.7	112.9	94.9	Medium
50	National Hybrid 129	86.4	84.4	2.3	19.8	63.3	82.4	93.1	Medium
51	Farmcraft Hybrid 88	86.1	85.8	.3	15.8	70.8	92.2	94.6	Medium
52	Pioneer Hybrid 336	85.9	85.1	.9	14.1	75.8	98.7	93.8	Medium
53	Pfister Hybrid 160	85.8	85.1	.8	16.4	62.5	81.4	93.8	Medium
54	Illinois Hybrid 126	85.4	81.9	4.1	16.0	77.2	100.5	90.3	Medium
55	Hoosier Crost Hybrid 668	84.3	84.0	.3	15.3	81.7	106.4	92.6	Medium
56	Hoosier Crost Hybrid F-169	84.2	83.9	.4	13.7	82.5	107.4	92.5	Medium
57	Pfister Hybrid 360A	84.1	83.9	.2	14.6	80.0	104.2	92.5	Low
58	Pioneer Hybrid 300	82.2	80.2	2.4	16.2	75.0	97.7	88.4	Medium
59	Miller Hybrid 26	79.6	79.4	.3	13.9	83.3	108.5	87.5	M-low
60	DeKalb Hybrid 919(W)	78.9	78.5	.5	18.2	77.2	100.5	86.5	Medium
	Average of all entries	91.6	90.7	.9	16.5	76.8	.....	.....	.....

A difference of less than 7.9 bushels between total yields of any two entries in this table is not significant.

Table 13.—SOUTHERN CORN ROOTWORM: Sullivan, South-Central Illinois, Extent to which stalks resisted lodging caused by the feeding of this insect[a]

Rank	Entry	Plants leaning 30 degrees or more	Plants leaning more than 45 degrees	Resistance rating compared with average[b]
		perct.	*perct.*	
1	Illinois Hybrid 21	4.3	.4	519
2	Crow Hybrid 608	5.1	.7	409
3	Hoosier Crost Hybrid F-169	6.8	0	397
4	Pfister Hybrid 164	6.3	.4	375
5	Miller Hybrid 26	8.0	0	338
6	Funk Hybrid G-137	7.1	1.3	276
7	DeKalb Hybrid 816	9.2	1.1	237
8	DeKalb Hybrid 835	8.7	1.4	233
9	Morgan Hybrid M-546	9.9	1.1	221
10	Funk Hybrid G-80	11.8	.3	218
10	Hoosier Crost Hybrid 746	11.0	.7	218
12	Producers' Hybrid 1000	10.4	1.1	214
13	Producers' Hybrid 1040	10.8	1.0	211
14	Funk Hybrid G-104	10.9	1.1	205
15	Crow Hybrid 805	10.5	1.5	195
16	Farmcraft Hybrid 81	14.1	0	190
17	Illinois (Ponder) Hybrid 501	15.2	0	178
18	Funk Hybrid G-96	13.6	1.4	165
18	Illinois Hybrid 201	14.9	.7	165
20	Funk Hybrid G-94	14.6	1.0	163
21	Appl Hybrid A-128	15.9	.4	161
22	Illinois Hybrid 126	14.0	1.7	155
23	U. S. Hybrid 13	15.6	1.1	152
24	Stiegelmeier Hybrid 102	13.3	2.8	142
25	Henley-Whisnand Hybrid 831	15.7	1.7	141
26	Hoosier Crost Hybrid 668	15.1	2.1	139
27	Producers' Hybrid 1050	15.5	2.0	138
27	Hoosier Crost Hybrid 840	15.3	2.1	138
27	Funk Hybrid G-169	14.7	2.4	138
30	Pfister Hybrid 1897	17.7	1.1	135
31	Pioneer Hybrid 304	15.2	3.5	122
32	Crow Hybrid 607	20.2	1.1	121
32	Iowealth Hybrid 29A	16.8	2.8	121
34	Illinois Hybrid 972-1	16.7	3.3	115
35	DeKalb Hybrid 922(W)	23.9	.7	106
36	Lowe Hybrid 840	15.5	5.0	105
37	Hoosier Crost Hybrid 505(W)	25.0	1.4	97
38	Appl Hybrid A-336	18.1	4.9	96
39	Pioneer Hybrid 300	19.3	4.6	94
40	Pioneer Hybrid 332	22.2	3.5	92
41	Illinois Hybrid 246	24.9	4.2	81
42	Pioneer Hybrid 336	24.6	4.6	80
43	Illinois Hybrid 247	24.3	4.8	79
44	Pfister Hybrid 1823	24.8	5.4	76
45	Funk Hybrid G-515(W)	31.2	3.2	72
46	Farmcraft Hybrid 88	34.2	2.9	68
47	Miller Hybrid 1050(W)	37.6	1.8	66
48	Null Hybrid N-77	29.0	6.5	64
49	DeKalb Hybrid 919(W)	34.9	4.8	61
50	Pfister Hybrid 160	37.0	4.2	59
51	Pfister Hybrid 360A	38.9	4.3	57
52	Hoosier Crost Hybrid 707(W)	40.1	3.9	56
53	DeKalb Hybrid 888	38.0	5.5	55
54	Illinois Hybrid 200	38.7	5.9	53
54	Henley-Whisnand Hybrid 941(W)	37.0	6.9	53
54	Pioneer Hybrid 313D	31.8	9.5	53
57	Lowe Hybrid 855(W)	51.0	6.2	43
58	National Hybrid 129	47.2	8.7	42
59	Henley-Whisnand Hybrid 901(W)	55.1	5.8	40
59	Henley-Whisnand Hybrid 917(W)	45.7	10.5	40
	Average of all entries	21.1	2.9	100

[a]*Diabrotica duodecimpunctata* (F.) [b]High rating indicates better standing ability.

In percentage of plants leaning 30 degrees or more, a difference of less than 17.9 between any two entries is not significant.

Table 14.—SOUTH-CENTRAL ILLINOIS: Sullivan Summary, 1943 and 1944

Rank	Entry	Acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest	Erect plants	Rating for—		Comparative height of ear
		Total	Sound				Erect plants	Sound yield	
		bu.	*bu.*	*perct.*	*perct.*	*perct.*	*perct.*	*perct.*	
1	Funk Hybrid G-137	100.2	99.8	.4	18.6	84.8	97.6	112.5	High
2	Funk Hybrid G-80	98.9	98.2	.7	20.4	90.6	104.3	110.7	M-high
3	Appl Hybrid A-128	95.3	95.2	.1	18.2	89.1	102.5	107.3	M-high
3	Henley-Whisnand Hybrid 917(W)	95.3	95.1	.3	19.1	75.6	87.0	107.2	High
5	Funk Hybrid G-104	94.1	93.9	.2	16.9	92.7	106.7	105.9	Medium
5	Henley-Whisnand Hybrid 941(W)	94.1	93.1	1.1	19.8	80.8	93.0	105.0	M-high
7	Henley-Whisnand Hybrid 831	93.7	92.9	.8	16.5	84.3	97.0	104.7	Medium
8	Miller Hybrid 1050(W)	92.8	92.5	.3	19.5	84.3	97.0	104.3	M-high
9	Illinois Hybrid 200	92.7	91.6	1.2	18.6	83.9	96.5	103.3	M-high
10	Appl Hybrid A-336	92.5	90.2	2.5	17.9	86.8	99.9	101.7	Medium
11	Funk Hybrid G-94	92.2	91.6	.6	16.8	86.9	100.0	103.3	Medium
12	U. S. Hybrid 13	92.0	91.4	.8	16.6	90.6	104.3	103.0	Medium
12	Illinois Hybrid 201	92.0	91.4	.6	16.0	88.7	102.1	103.0	Medium
14	DeKalb Hybrid 835	91.8	91.3	.5	16.4	93.2	107.2	102.9	M-low
15	Producers' Hybrid 1040	91.7	91.5	.2	17.2	93.3	107.4	103.2	Medium
16	Producers' Hybrid 1000	91.5	91.2	.3	16.0	89.7	103.2	102.8	Medium
17	Henley-Whisnand Hybrid 901(W)	91.0	90.9	.2	19.3	81.5	93.8	102.5	M-high
18	Null Hybrid N-77	90.8	89.4	1.6	17.3	77.3	89.0	100.8	Medium
19	Crow Hybrid 607	90.2	89.5	.8	18.9	84.6	97.4	100.9	Medium
20	Pfister Hybrid 1897	90.1	88.7	1.6	16.9	94.7	109.0	100.0	Medium
21	Pioneer Hybrid 332	90.0	88.7	1.4	18.8	87.8	101.0	100.0	Medium
22	DeKalb Hybrid 816	89.9	89.6	.3	18.1	88.5	101.8	101.0	Medium
23	Pfister Hybrid 160	89.2	88.5	.8	16.7	79.4	91.4	99.8	Medium
24	Iowealth Hybrid 29A	88.9	88.5	.5	18.2	92.2	106.1	99.8	M-high
24	Pfister Hybrid 164	88.9	88.3	.7	17.1	92.6	106.6	99.5	Medium
26	Crow Hybrid 805	88.8	87.9	1.0	16.8	88.3	101.6	99.1	Medium
27	Farmcraft Hybrid 81	88.7	88.3	.5	15.9	89.0	102.4	99.5	M-low
27	Illinois Hybrid 247	88.7	88.1	.7	18.3	84.7	97.5	99.3	M-high
29	Funk Hybrid G-169	88.5	87.6	1.0	17.2	88.6	102.0	98.8	Medium
30	DeKalb Hybrid 888	88.2	86.0	2.5	19.6	75.8	87.2	97.0	M-high
31	Lowe Hybrid 840	88.1	87.8	.4	18.9	88.2	101.5	99.0	Medium
32	Hoosier Crost Hybrid 840	87.5	87.3	.3	17.7	89.5	103.0	98.4	Medium
33	Farmcraft Hybrid 88	87.1	86.0	1.3	17.5	84.2	96.9	97.0	Medium
34	Crow Hybrid 608	86.7	86.4	.4	15.9	91.6	105.4	97.4	Medium
34	Pioneer Hybrid 336	86.7	86.2	.6	16.5	86.1	99.1	97.2	Medium
36	Illinois Hybrid 21	86.5	84.9	1.8	18.5	94.8	109.1	95.7	Medium
37	Miller Hybrid 26	86.1	85.9	.3	16.0	90.4	104.5	96.8	Medium
38	Hoosier Crost Hybrid F-169	85.9	85.6	.3	16.0	89.4	102.9	96.5	M-low
38	Hoosier Crost Hybrid 505(W)	85.9	84.4	1.7	17.3	77.8	89.5	95.2	Medium
40	Pioneer Hybrid 313D	85.7	85.3	.5	16.5	82.1	94.5	96.2	M-low
41	Hoosier Crost Hybrid 668	85.0	84.8	.2	16.6	89.5	103.0	95.6	M-low
42	Hoosier Crost Hybrid 746	84.8	84.5	.4	17.1	91.9	105.8	95.2	Medium
43	Pioneer Hybrid 300	84.3	82.8	1.9	19.2	86.8	99.9	93.3	Medium
44	Illinois Hybrid 126	82.8	80.5	2.8	17.0	85.0	97.8	90.8	Medium
45	DeKalb Hybrid 922(W)	80.7	80.3	.5	20.0	84.3	97.0	90.5	M-high
46	DeKalb Hybrid 919(W)	78.4	78.1	.5	18.7	86.8	99.9	88.0	Medium
	Average of all entries	89.5	88.7	.83	17.7	86.9	.....	.....	.....

A difference of less than 5.1 bushels between total yields of any two entries in this table is not significant.

Table 15.—SOUTHERN ILLINOIS: Alhambra, 1944

Rank	Entry	Acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest	Erect plants	Rating for—		Test weight per bushel	Comparative height of ear
		Total	Sound				Erect plants	Sound yield		
		bu.	*bu.*	*perct.*	*perct.*	*perct.*	*perct.*	*perct.*	*lb.*	
1	Illinois Hybrid 200	47.7	46.9	1.6	13.4	63.3	90.7	143.9	58.0	M-low
2	Illinois Hybrid 1243	46.5	46.1	.9	16.2	51.6	73.9	141.4	58.3	Medium
3	Pfeifer Hybrid A-140-1	45.1	44.6	1.2	12.1	55.8	79.9	136.8	58.4	Medium
4	Kansas Hybrid 2234(W)	43.2	42.8	1.0	17.5	52.5	75.2	131.3	58.0	Medium
5	U. S. Hybrid 13	42.4	42.2	.4	13.1	80.8	115.8	129.4	57.9	Medium
6	Miller Hybrid 1050(W)	42.0	40.5	3.6	13.9	75.0	107.4	124.2	56.8	M-high
7	Funk Hybrid G-80	39.7	39.1	1.5	13.7	77.5	111.0	119.9	58.1	Medium
8	Illinois Hybrid 206	38.2	37.8	1.0	13.4	70.0	100.3	116.0	59.4	M-low
9	Kansas Hybrid 1583	38.1	37.4	1.8	16.8	50.8	72.8	114.7	56.7	Medium
10	Henley-Whisnand Hybrid 917(W)	38.0	37.8	.4	17.0	60.0	86.0	116.0	58.4	M-high
11	Kansas Hybrid 2275(W)	37.8	37.6	.4	14.4	58.3	83.5	115.3	58.1	Medium
12	Pfeifer Hybrid A-243	37.1	37.0	.2	15.8	55.0	78.8	113.5	58.0	Medium
13	Illinois Hybrid 804	36.3	36.2	.4	13.5	50.0	71.6	111.0	58.0	Medium
14	Pioneer Hybrid 304	36.1	36.1	0	13.1	90.8	130.0	110.7	55.7	M-low
14	DeKalb Hybrid 888	36.1	36.0	.4	14.7	76.6	109.7	110.4	58.9	Medium
16	Illinois Hybrid 877	35.9	35.8	.2	16.5	49.1	70.3	109.8	57.9	Medium
17	Crow Hybrid 607	35.6	34.0	4.6	14.2	73.3	105.0	104.3	57.9	M-low
18	Kansas Hybrid 1585	35.5	35.3	.7	15.4	55.8	79.9	108.3	56.7	Medium
19	Funk Hybrid G-527(W)	35.2	35.1	.4	13.4	60.8	87.1	107.7	56.3	Medium
20	Hoosier Crost Hybrid 1005	34.8	34.6	.6	17.2	32.5	46.6	106.1	58.3	M-low
21	Illinois Hybrid 2059(W)	34.5	34.4	.4	14.4	78.3	112.1	105.5	54.7	Medium
22	Illinois Hybrid 448	34.4	34.2	.6	15.7	52.5	75.2	104.9	57.7	Medium
22	Lowe Hybrid 840	34.4	34.1	.8	12.8	82.5	118.2	104.6	54.3	Medium
24	Illinois Hybrid 201	34.2	34.1	.3	12.6	89.1	127.6	104.6	55.0	M-low
24	Lowe Hybrid 855(W)	34.2	34.0	.5	16.0	62.5	89.5	104.3	56.3	Medium
26	Funk Hybrid G-125	34.0	33.9	.4	12.8	60.0	86.0	104.0	59.4	M-high
27	Iowealth Hybrid 29A	33.7	33.5	.6	12.2	77.5	111.0	102.8	56.7	M-low
28	Embro Hybrid 1001	33.5	33.2	.9	16.5	59.1	84.7	101.8	56.3	Medium
29	Pfister Hybrid 1823	33.0	32.9	.4	12.8	80.0	114.6	100.9	57.1	Medium
30	Hoosier Crost Hybrid F-169	32.7	32.5	.7	12.8	85.8	122.9	99.7	55.6	M-low
31	Illinois Hybrid 784	32.5	32.4	.4	15.6	55.8	79.9	99.4	58.2	Medium
32	Illinois Hybrid 713	32.4	32.3	.4	13.3	74.1	106.2	99.1	56.0	M-low
33	Funk Hybrid G-96	32.2	32.1	.2	13.7	69.1	99.0	98.5	58.2	M-low
34	DeKalb Hybrid 922(W)	31.7	31.4	.9	13.7	71.6	102.6	96.3	55.6	Medium
35	DeKalb Hybrid 919(W)	31.2	30.9	1.1	14.3	80.0	114.6	94.8	52.1	M-low
36	Pioneer Hybrid 336	30.9	30.8	.4	12.8	75.8	108.6	94.5	57.3	Medium
37	DeKalb Hybrid 816	30.8	30.7	.2	13.8	86.3	123.6	94.2	56.9	M-low
38	Stiegelmeier Hybrid 1313	30.6	30.5	.2	13.7	81.6	116.9	93.6	53.4	M-low
38	Pioneer Hybrid 332	30.6	30.3	.9	14.7	81.6	116.9	92.9	56.3	Medium
40	Hoosier Crost Hybrid 840	30.0	29.9	.4	13.0	85.0	121.8	91.7	54.0	M-low
41	Pfister Hybrid 610(W)	29.9	29.6	1.0	13.1	60.0	86.0	90.8	55.9	M-high
42	Pfister Hybrid 7892	29.6	29.6	.1	12.8	83.3	119.3	90.8	57.2	M-low
42	Farmcraft Hybrid 88	29.6	29.4	.7	13.7	81.6	116.9	90.2	56.3	M-low
44	Pioneer Hybrid 313D	29.4	29.2	.8	14.1	65.0	93.1	89.6	52.8	M-low
45	Illinois Hybrid 2077(W)	29.3	29.2	.3	13.7	65.8	94.3	89.6	58.3	Medium
46	Embro Hybrid 1020	29.2	29.2	.1	14.4	78.3	112.2	89.6	54.3	Low
47	Pioneer Hybrid 300	28.9	28.9	.1	11.3	85.8	122.9	88.7	54.7	Medium
48	Henley-Whisnand Hybrid 901(W)	28.7	27.6	3.8	14.1	70.0	100.3	84.7	57.0	Medium
49	Crow Hybrid 805	28.3	28.2	.4	12.0	77.5	111.0	86.5	55.4	M-low
50	Pfister Hybrid 160	26.9	26.7	.6	12.6	70.0	100.3	81.9	55.4	M-low
51	Funk Hybrid G-94	26.8	26.7	.5	13.7	76.6	109.7	81.9	55.1	M-low
52	Pfister Hybrid 164	26.3	26.2	.2	13.2	71.6	102.6	80.4	57.5	M-low
52	National Hybrid 134	26.3	26.2	.4	14.1	71.3	102.1	80.4	56.7	M-low
54	Farmcraft Hybrid 133(W)	26.2	25.8	1.4	17.3	75.8	108.6	79.1	55.7	Medium
54	Illinois Hybrid 126	26.2	25.8	1.6	14.9	68.3	97.8	79.1	55.7	M-low
56	Hoosier Crost Hybrid 746	26.0	25.9	.2	14.4	68.3	97.8	79.4	55.7	Low
57	Pfister Hybrid 1897	25.6	25.6	.1	12.5	79.1	113.3	78.5	56.3	M-low
58	Pfister Hybrid 612(W)	24.0	23.9	.3	13.9	80.8	115.8	73.3	56.5	Medium
59	Funk Hybrid G-708	22.1	22.1	0	16.5	66.4	95.1	67.8	56.7	M-high
60	Funk Hybrid G-706	20.4	20.4	.1	15.1	63.3	90.7	62.6	59.6	M-high
	Average of all entries	32.9	32.6	.7	13.9	o9.8	....	.....	56.7	.....

A difference of less than 9.1 bushels between total yields of any two entries in this table is not significant.

Table 16.—SOUTHERN ILLINOIS: Alhambra Summary, 1943 and 1944

Rank	Entry	Acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest	Erect plants	Rating for—		Comparative height of ear
		Total	Sound				Erect plants	Sound yield	
		bu.	*bu.*	*perct.*	*perct.*	*perct.*	*perct.*	*perct.*	
1	Illinois Hybrid 1243	50.7	50.4	.6	16.7	73.9	91.6	129.6	Medium
2	Illinois Hybrid 200	50.2	49.7	1.0	13.9	77.3	95.8	127.8	M-low
3	Kansas Hybrid 2275(W)	49.0	48.9	.3	15.6	69.8	86.5	125.7	Medium
4	Kansas Hybrid 2234(W)	46.3	46.0	.6	17.9	70.4	87.2	118.3	Medium
5	Funk Hybrid G-80	46.1	45.7	1.0	16.8	88.3	109.4	117.5	Medium
6	Kansas Hybrid 1583	45.1	44.6	1.1	19.9	73.7	91.3	114.7	Medium
7	Illinois Hybrid 784	43.9	43.7	.4	18.1	73.7	91.3	112.3	Medium
8	Henley-Whisnand Hybrid 917(W)	43.5	43.3	.5	17.3	71.3	88.4	111.3	M-high
9	U. S. Hybrid 13	42.8	42.5	.5	13.2	87.5	108.4	109.3	Medium
10	Illinois Hybrid 804	42.6	42.5	.3	15.4	71.5	88.6	109.3	Medium
10	Illinois Hybrid 877	42.6	42.5	.2	16.8	67.6	83.8	109.3	Medium
12	Funk Hybrid G-125	42.2	42.1	.3	15.0	78.8	97.6	108.2	M-high
13	DeKalb Hybrid 922(W)	41.1	40.9	.5	15.0	76.3	94.5	105.1	Medium
14	Miller Hybrid 1050(W)	41.0	40.1	2.1	15.9	79.0	97.9	103.1	M-high
15	Crow Hybrid 607	40.8	39.9	2.4	15.0	85.7	106.1	102.6	M-low
16	DeKalb Hybrid 888	40.6	40.4	.5	14.7	84.6	104.8	103.9	Medium
17	Pfister Hybrid 1823	40.4	40.3	.5	13.7	88.8	110.0	103.6	Medium
18	Illinois Hybrid 2059(W)	39.6	39.5	.4	16.0	81.7	101.2	101.5	Medium
19	Kansas Hybrid 1585	39.4	39.2	.5	17.2	75.4	93.4	100.8	Medium
20	Crow Hybrid 805	39.3	39.2	.3	13.2	87.9	108.9	100.8	M-low
21	Illinois Hybrid 713	39.0	38.9	.4	14.8	85.6	106.1	100.0	M-low
22	Iowealth Hybrid 29A	38.6	38.4	.5	13.5	80.3	99.5	98.7	M-low
23	Funk Hybrid G-527(W)	38.5	38.4	.2	15.7	72.5	89.8	98.7	Medium
24	DeKalb Hybrid 816	37.7	37.6	.3	14.3	92.3	114.4	96.7	M-low
25	Illinois Hybrid 201	36.8	36.6	.4	13.7	92.1	114.1	94.1	M-low
26	Hoosier Crost Hybrid 840	36.5	36.3	.6	14.5	92.0	114.0	93.3	M-low
27	Farmcraft Hybrid 133(W)	36.0	35.8	.8	16.5	72.9	90.3	92.0	Medium
28	Lowe Hybrid 840	35.7	35.5	.5	13.7	87.1	107.9	91.3	Medium
28	DeKalb Hybrid 919(W)	35.7	35.5	.7	16.3	85.4	105.8	91.3	M-low
30	Henley-Whisnand Hybrid 901 (W)	35.1	34.5	2.2	16.8	78.0	96.7	88.7	Medium
31	Pioneer Hybrid 332	35.0	34.8	.6	16.0	87.5	108.4	89.5	Medium
32	Farmcraft Hybrid 88	34.4	34.0	1.0	14.2	85.3	105.7	87.4	M-low
33	Illinois Hybrid 2077(W)	34.1	34.0	.4	14.4	74.4	92.2	87.4	Medium
34	Pfister Hybrid 1897	33.9	33.8	.2	13.3	87.1	107.9	86.9	M-low
35	Pioneer Hybrid 336	33.2	33.1	.3	13.7	85.4	105.8	85.1	Medium
36	Illinois Hybrid 126	32.4	32.1	1.2	15.2	77.9	96.5	82.5	M-low
37	Hoosier Crost Hybrid 746	32.2	32.1	.3	15.0	82.3	89.6	82.5	Low
38	Pioneer Hybrid 300	32.1	32.0	.2	13.2	90.8	112.5	82.3	Medium
39	Pioneer Hybrid 313D	31.5	31.3	.6	14.8	80.6	99.9	80.5	M-low
40	Pfister Hybrid 164	29.8	29.6	.5	14.7	85.3	105.7	76.1	M-low
	Average of all entries	39.1	38.9	.65	15.3	80.7	.....	.....	.....

Table 17.—EXTREME SOUTHERN ILLINOIS: Dixon Springs Bottomland, 1944

Rank	Entry	Acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest	Erect plants	Rating for sound yield	Comparative height of ear
		Total	Sound					
		bu.	*bu.*	*perct.*	*perct.*		*perct.*	
1	Illinois Hybrid 2120(W)	64.6	63.7	1.4	18.6		134.4	M-high
2	Funk Hybrid G-711	63.0	62.3	1.6	27.0		131.4	M-high
3	Illinois Hybrid 2119(W)	59.2	58.1	1.9	19.5		122.6	M-high
4	Hoosier Crost Hybrid 707(W)	58.2	57.9	.6	19.8		122.2	M-high
5	Henley-Whisnand Hybrid 905(W)	58.1	57.8	.5	20.8		121.9	M-high
6	Kansas Hybrid 2275(W)	58.0	54.7	5.7	19.5		115.4	M-high
7	Farmcraft Hybrid 133(W)	57.2	56.6	1.0	22.7		119.4	M-high
8	Illinois Hybrid 2077(W)	57.1	56.9	.4	21.0		120.0	Medium
9	Illinois Hybrid 784 (Pfeifer)	57.0	55.0	3.5	19.3		116.0	M-high
10	Illinois Hybrid 2059(W)	56.8	56.3	.8	18.5		118.8	M-high
11	Illinois Hybrid 200-1	56.3	55.2	2.0	20.1		116.5	M-high
12	Illinois Hybrid 126	56.0	54.9	2.0	18.5		115.8	Medium
13	Lowe Hybrid 855(W)	55.3	54.9	.8	20.3		115.8	Medium
14	Illinois Hybrid 713	55.1	54.7	.8	20.6		115.4	M-high
15	Illinois Hybrid 448	53.9	53.4	1.0	19.2		112.7	Medium
16	Miller Hybrid 1050(W)	53.4	52.9	1.0	20.0		111.6	M-high
17	Pioneer Hybrid 304	53.2	52.2	1.8	21.0		110.1	Medium
18	Pioneer Hybrid 313D	52.9	52.7	.4	23.7		111.2	Medium
19	Henley-Whisnand Hybrid 917(W)	52.5	51.8	1.4	20.6		109.3	M-high
20	Henley-Whisnand Hybrid 834	51.7	49.4	4.4	20.9		104.2	M-high
21	Illinois Hybrid 1239	51.3	49.0	4.5	19.3		103.4	M-high
22	Illinois Hybrid 2019B(W)	51.0	50.6	.7	21.4		106.8	Medium
22	Funk Hybrid G-135	51.0	50.6	.8	23.5		106.8	M-high
22	Illinois Hybrid 804	51.0	47.9	6.0	17.7		101.1	M-high
25	Kansas Hybrid 1585	50.9	50.5	.8	20.8		106.5	M-high
26	DeKalb Hybrid 888	50.3	49.8	.8	19.9		105.1	Medium
27	Funk Hybrid G-125	49.2	48.5	1.5	18.6		102.3	M-high
28	Kansas Hybrid 1583	49.1	48.3	1.6	23.1		101.9	M-high
28	Pioneer Hybrid 300	49.1	47.4	3.5	20.0		100.0	Medium
30	Pioneer Hybrid 336	48.7	46.6	4.4	16.5		98.3	Medium
31	Illinois Hybrid 1233	48.2	47.0	2.5	19.9		99.2	Medium
31	Kansas Hybrid 2234(W)	48.2	47.0	2.8	22.1		99.2	M-high
33	Pioneer Hybrid 332	48.1	46.1	4.2	19.8		97.3	Medium
33	Illinois Hybrid 1238B	48.1	45.6	5.1	20.1		96.2	Medium
35	Funk Hybrid G-90	47.9	47.4	1.0	21.6		100.0	Medium
36	Embro Hybrid 1001	47.5	46.6	1.8	22.2		98.3	M-high
37	Illinois Hybrid 200	47.3	45.1	4.6	21.7		95.1	Medium
38	DeKalb Hybrid 922(W)	46.6	46.1	1.0	20.5		97.3	Medium
39	Kelly Hybrid K-99	46.3	43.4	6.8	17.8		91.6	Medium
40	Lowe Hybrid 840	46.0	44.6	3.0	19.0		94.1	Medium
41	Hoosier Crost Hybrid 746	45.9	43.1	6.0	17.6		90.9	Medium
42	Embro Hybrid 1020	45.0	43.7	2.8	19.2		92.2	M-low
42	Iowealth Hybrid 25A	45.0	43.7	2.8	19.3		92.2	Medium
44	U. S. Hybrid 13	44.2	43.3	2.1	19.2		91.4	Medium
44	Illinois Hybrid 784	44.2	43.0	2.7	21.2		90.7	M-high
46	Pfeifer Hybrid A-140-1	43.8	42.2	3.6	20.5		89.0	M-high
47	Farmcraft Hybrid 88	43.2	41.6	3.6	18.7		87.8	Medium
48	Illinois Hybrid 1233-1	43.0	42.0	2.4	21.6		88.6	Medium
49	Illinois Hybrid 201	42.2	41.4	1.8	18.3		87.3	Medium
50	Hoosier Crost Hybrid 840	41.5	39.1	5.9	18.4		82.5	Medium
51	Funk Hybrid G-527(W)	40.8	40.1	1.8	22.1		84.6	Medium
52	Illinois Hybrid 877	40.6	40.2	1.1	21.0		84.8	M-high
53	Pfeifer Hybrid A-243	39.5	38.7	1.9	22.2		81.6	M-high
54	Kelly Hybrid K-374	39.2	37.5	4.4	17.6		79.1	Medium
55	Illinois Hybrid 1257	38.2	37.7	1.4	18.5		79.5	Medium
56	Miller Hybrid 26	38.0	37.2	2.0	23.2		78.5	Medium
57	DeKalb Hybrid 816	37.9	35.7	5.9	19.1		75.3	Medium
58	DeKalb Hybrid 919(W)	35.5	35.1	1.0	19.8		74.1	Medium
59	Funk Hybrid G-708	30.2	29.7	1.8	28.9		62.7	M-high
60	Funk Hybrid G-706	28.8	28.7	.3	22.2		60.5	M-high
	Average of all entries	48.5	47.4	2.4	20.4		.....	.....

ALL ENTRIES WERE PRACTICALLY 100-PERCENT ERECT

A difference of less than 9.1 bushels between total yields of any two entries in this table is not significant.

Table 18.—EXTREME SOUTHERN ILLINOIS: Dixon Springs Bottomland, Summary for 1943 and 1944

Rank	Entry	Acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest	Erect plants	Rating for—		Comparative height of ear
		Total	Sound				Erect plants	Sound yield	
		bu.	*bu.*	*perct.*	*perct.*	*perct.*	*perct.*	*perct.*	
1	Funk Hybrid G-711	66.6	65.6	1.8	28.9	97.5	100.0	129.4	M-high
2	Kansas Hybrid 2275(W)	62.1	60.2	3.2	21.9	94.2	96.6	118.7	M-high
3	Illinois Hybrid 2119(W)	62.0	60.5	2.5	22.3	98.3	100.8	119.3	M-high
4	Illinois Hybrid 2120(W)	60.7	59.9	1.2	23.1	97.9	100.4	118.1	M-high
5	Illinois Hybrid 2077(W)	58.6	58.1	1.0	22.6	96.3	98.8	114.6	Medium
5	Hoosier Crost Hybrid 707(W)	58.6	57.8	1.3	22.7	98.3	100.8	114.0	Medium
7	Farmcraft Hybrid 133(W)	58.5	57.8	1.2	23.1	97.5	100.0	114.0	M-high
8	Henley-Whisnand Hybrid 917(W)	58.3	57.5	1.4	23.5	97.5	100.0	113.4	M-high
9	Illinois Hybrid 2059(W)	57.1	55.6	2.6	20.9	96.7	99.2	109.7	Medium
10	Kansas Hybrid 1583	56.1	54.5	2.7	25.1	97.5	100.0	107.5	M-high
11	Kansas Hybrid 2234(W)	55.3	54.2	2.3	24.6	98.8	101.3	106.9	M-high
12	Illinois Hybrid 2019B(W)	54.4	53.8	1.1	22.6	98.3	100.8	106.0	Medium
13	Kansas Hybrid 1585	54.2	53.3	1.6	23.9	99.6	102.2	105.1	M-high
13	Pioneer Hybrid 332	54.2	52.4	3.4	20.6	98.8	101.3	103.4	Medium
15	Illinois Hybrid 126	54.1	53.1	1.9	20.0	97.1	99.6	104.7	M-low
16	Illinois Hybrid 1239	54.0	52.1	3.5	21.2	98.8	101.3	102.8	Medium
17	Illinois Hybrid 713	53.7	53.0	1.4	21.9	97.1	99.6	104.5	Medium
18	Illinois Hybrid 877	53.1	52.6	1.1	22.4	93.8	96.2	103.7	M-high
19	Miller Hybrid 1050(W)	52.9	52.3	1.2	22.8	97.9	100.4	103.2	Medium
19	Funk Hybrid G-135	52.9	52.1	1.6	25.9	98.3	100.8	102.8	M-high
21	Illinois Hybrid 804	52.5	50.5	3.9	20.3	98.8	101.3	99.6	Medium
22	Illinois Hybrid 1238B	51.7	49.6	4.0	21.8	97.1	99.6	97.8	Medium
23	DeKalb Hybrid 888	51.5	50.9	1.2	22.1	99.2	101.7	100.4	Medium
24	Funk Hybrid G-90	51.4	50.6	1.4	23.6	96.3	98.8	99.8	Medium
25	Funk Hybrid G-125	51.1	50.5	1.3	20.7	99.2	101.7	99.6	M-high
26	DeKalb Hybrid 922(W)	50.6	49.7	1.7	20.8	97.1	99.6	98.0	Medium
27	Iowealth Hybrid 25A	50.1	49.0	2.2	22.6	99.2	101.7	96.6	M-high
28	Pioneer Hybrid 300	49.5	47.5	4.1	19.9	97.5	100.0	93.7	M-low
29	Funk Hybrid G-527(W)	48.7	47.9	1.7	23.6	92.1	94.5	94.5	M-high
30	Farmcraft Hybrid 88	48.3	46.9	3.1	20.7	94.2	96.6	92.5	Medium
31	Illinois Hybrid 200	47.8	46.1	3.5	21.3	97.5	100.0	90.9	Medium
32	Pioneer Hybrid 313D	47.6	47.2	1.1	22.3	97.8	100.3	93.1	M-low
33	Hoosier Crost Hybrid 840	47.4	45.4	4.5	20.6	98.8	101.3	89.5	M-low
34	Illinois Hybrid 1233	46.8	45.4	3.1	21.6	98.8	101.3	89.5	Medium
35	Illinois Hybrid 784	46.3	45.3	2.1	24.1	96.3	98.8	89.3	Medium
36	DeKalb Hybrid 816	45.1	43.5	4.0	18.5	97.9	100.4	85.8	Medium
37	Lowe Hybrid 840	45.0	44.0	2.2	22.7	98.3	100.8	86.8	M-low
38	U. S. Hybrid 13	44.8	44.0	1.9	20.0	97.5	100.0	86.8	M-low
39	Pioneer Hybrid 336	44.2	42.7	3.3	18.7	99.2	101.7	84.2	M-low
40	Hoosier Crost Hybrid 746	43.4	41.6	4.1	19.0	97.9	100.4	82.1	M-low
41	Miller Hybrid 26	40.1	39.0	2.7	21.8	95.0	97.4	76.9	M-low
42	DeKalb Hybrid 919(W)	35.8	35.1	1.7	21.1	97.9	100.4	69.2	M-low
	Average of all entries	51.8	50.7	2.3	22.1	97.5	.....	.....	.....

A difference of less than 8.3 bushels between total yields of any two entries in this table is not significant.

Table 19.—EXTREME SOUTHERN ILLINOIS: Dixon Springs Upland, 1944

Rank	Entry	Acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest	Erect plants	Rating for—		Comparative height of ear
		Total	Sound				Erect plants	Sound yield	
		bu.	*bu.*	*perct.*	*perct.*	*perct.*	*perct.*	*perct.*	
1	Kansas Hybrid 2275(W)	30.0	28.9	3.6	19.0	98.3	98.7	137.6	Medium
2	Illinois Hybrid 200-1	29.9	28.8	3.6	16.7	100.0	100.4	137.1	Medium
3	Pioneer Hybrid 332	29.8	28.3	5.0	19.1	100.0	100.4	134.8	Medium
4	Kansas Hybrid 2234(W)	26.0	25.8	.9	19.5	100.0	100.4	122.9	M-high
5	Illinois Hybrid 2059(W)	25.9	24.8	4.1	16.4	100.0	100.4	118.1	M-high
6	Illinois Hybrid 1233-1	23.6	22.7	3.8	17.7	100.0	100.4	108.1	Medium
7	Illinois Hybrid 200	21.6	20.6	4.8	17.5	100.0	100.4	98.1	M-high
8	Illinois Hybrid 2119(W)	20.9	19.8	5.2	16.0	98.3	98.7	94.3	M-high
9	Henley-Whisnand Hybrid 917(W)	19.8	19.5	1.7	17.3	100.0	100.4	92.9	M-high
10	Illinois Hybrid 877	19.6	18.9	3.4	18.1	100.0	100.4	90.0	Medium
11	Illinois Hybrid 2077(W)	18.2	16.9	7.2	17.5	98.3	98.7	80.5	Medium
12	Kansas Hybrid 1585	16.9	15.8	6.3	19.8	100.0	100.4	75.2	Medium
13	Kansas Hybrid 1583	16.0	15.1	5.4	18.4	100.0	100.4	71.9	M-high
14	Funk Hybrid G-711	8.9	8.5	4.8	23.5	100.0	100.4	40.5	M-high
	Average of all entries	22.0	21.0	4.3	18.3	99.6	.....	.....	.....

A difference of less than 9.1 bushels between total yields of any two entries in this table is not significant.

SOIL ADAPTATION TEST

The same nine double-cross hybrids that were tested at Urbana on soils of different productive levels in 1943 were tested again in 1944 in the same way (*Table 20*).

Soils. The two areas used for the tests are on the Agronomy south farm and differ in productivity as a result of long-continued use of different cropping systems. In the Southwest rotation a high state of productivity has been maintained by a systematic rotation of corn, oats, clover hay, and wheat with a red-clover catch crop. The South-Central area has been depleted of fertility by a rotation of corn, corn, corn, and soybeans. Both fields have received manure and phosphate. The predominating soil type on both fields is Sidell silt loam.

Season. Heavy spring rains delayed planting in 1944 as in 1943. The highly productive plot was planted on May 27, the less productive plot on June 7. Conditions after planting were generally favorable altho rainfall was below average thru July and August. Harvesting was delayed until the latter part of November.

1944 results. On the more productive field the average yield was 109.8 bushels an acre; on the less productive field it was only 54.8 bushels, just half as much (*Table 20*). The high yield is 9 bushels above and the low yield 10 bushels below comparable 1943 yields.

Contrary to previous tests, these nine hybrids in 1944 ranked the same on both fields. Illinois 972-1 and 246 were at the top, as they were on the more productive plots in 1943. The three less adapted hybrids, Illinois 784, 751, and 101, were the three low-ranking entries on both fields. Illinois 784 is

Table 20.—SOIL ADAPTATION TEST: Central Illinois, Urbana

Rank	Entry	Acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest	Erect plants	Rating for—	
		Total	Sound				Erect plants	Sound yield
	HIGHLY PRODUCTIVE SOIL: Mostly Sidell Silt Loam slightly rolling phase (S100, Southwest rotation)							
		bu.	*bu.*	*perct.*	*perct.*	*perct.*	*perct.*	*perct.*
1	Illinois Hybrid 972-1	115.9	114.6	1.1	18.2	79.7	100	105
2	Illinois Hybrid 246	115.3	114.6	.6	19.5	78.2	98	105
3	Illinois Hybrid 21	114.1	112.6	1.3	18.7	87.6	110	103
4	U. S. Hybrid 13	112.9	111.9	.9	18.9	76.9	96	103
5	Illinois Hybrid 201	111.2	109.3	1.7	18.4	76.0	95	100
6	Illinois Hybrid 206	109.8	108.8	.9	18.6	76.8	96	100
7	Illinois Hybrid 784	105.6	105.1	.5	21.1	63.2	79	97
8	Illinois Hybrid 751	102.2	101.7	.5	19.0	93.0	117	93
9	Illinois Hybrid 101	100.8	100.4	.5	16.7	86.3	108	92
	Average	109.8	108.8	.9	18.8	79.7	...	...
	A difference of less than 3.5 bushels between total yields of any two of the above entries is not significant.							
	MEDIUM PRODUCTIVE SOIL: Mostly Sidell Silt Loam slightly rolling phase (S700, South-Central rotation)							
1	Illinois Hybrid 972-1	58.9	58.5	.7	19.9	60.4	89	108
2	Illinois Hybrid 246	58.4	57.9	.9	21.1	55.8	82	107
3	Illinois Hybrid 21	58.1	57.4	1.2	20.6	78.1	115	106
4	U. S. Hybrid 13	57.8	56.2	2.7	20.9	72.3	107	104
5	Illinois Hybrid 201	57.1	56.3	1.4	19.8	66.7	98	104
5	Illinois Hybrid 206	57.1	56.6	.8	20.9	76.6	113	105
7	Illinois Hybrid 784	50.9	50.6	.5	22.1	57.9	85	94
7	Illinois Hybrid 751	50.9	50.0	1.7	20.0	77.4	114	92
9	Illinois Hybrid 101	44.5	43.8	1.6	19.7	64.9	96	81
	Average	54.8	54.1	1.3	20.5	67.8	...	...
	A difference of less than 4.6 bushels between total yields of any two of the above entries is not significant.							

very late-maturing for the central region of Illinois. Illinois 751 and 101 are much too early for the region of this test.

Between the six top-ranking adapted hybrids on the less productive plots there was a maximum difference of only 1.9 bushels an acre. On the more productive field the range was 6.1 bushels. There is thus very little reason, so far as yields are concerned, for choosing one of these hybrids over another. Differences in the percentage of erect plants are, however, very striking. In both tests Illinois 21 ranked highest in erect plants. Illinois 246 ranked relatively high on the better soil but went to the bottom of the list on the less productive field. On the more productive field 79.7 percent of the plants were erect; on the poorer field only 67.8 percent were erect. Thus physical factors other than yield need to be considered when judging of the adaptability of a hybrid to its environment.

Damage in the Southwest rotation area was due mostly to stalk breakage caused by the corn borer. In the South-Central area damage was due to lodging caused by rootworm injury.

The average of two years' results are given in Table 21.

Table 21.—TWO-YEAR AVERAGE SOIL ADAPTATION TESTS: Central Illinois, Urbana

Rank	Entry	Acre-yield		Damaged corn in shelled sample	Moisture in grain at harvest
		Total	Sound		
	HIGHLY PRODUCTIVE SOIL: Sidell Silt Loam, gently sloping phase, and Flanagan Silt Loam (Southwest rotation)				
		bu.	*bu.*	*perct.*	*perct.*
1	Illinois Hybrid 972-1	111.2	109.9	.9	17.0
2	Illinois Hybrid 246	110.2	109.7	.5	18.7
3	Illinois Hybrid 21	108.5	107.4	1.0	18.4
4	U. S. Hybrid 13	108.3	107.5	1.8	18.4
5	Illinois Hybrid 201	108.1	106.7	1.3	18.5
6	Illinois Hybrid 206	105.8	105.0	.7	17.8
7	Illinois Hybrid 784	104.2	103.6	.7	21.4
8	Illinois Hybrid 751	96.7	96.1	.4	18.2
9	Illinois Hybrid 101	94.6	94.2	.5	16.1
	A difference of less than 2.4 bushels between total yields of any two of the above entries is not significant.				
	MEDIUM PRODUCTIVE SOIL: Sidell Silt Loam, slightly rolling phase (South-Central rotation)				
1	Illinois Hybrid 21	63.0	62.3	1.1	18.2
2	Illinois Hybrid 972-1	62.9	62.4	.6	18.0
3	Illinois Hybrid 201	62.1	61.3	1.3	17.4
4	Illinois Hybrid 206	61.1	60.6	.9	18.7
5	Illinois Hybrid 246	60.9	60.4	.8	18.6
6	U. S. Hybrid 13	60.1	62.4	2.0	18.9
7	Illinois Hybrid 784	59.9	59.5	.6	20.6
8	Illinois Hybrid 751	56.1	55.6	1.1	17.5
9	Illinois Hybrid 101	49.2	48.1	1.2	17.1
	A difference of less than 4.0 bushels between total yields of any two of the above entries is not significant.				

INTERPRETING RESULTS

A two-year test of any crop is of course a better basis for judging of its merit than a single year's record. For about two-thirds of the hybrids in the 1944 tests two-year summaries are given consolidating 1943 and 1944 results. Should a hybrid prove superior thru two years on more than one field, it may be considered not only high yielding but also wide in adaptation.

Yield of grain, while used as a basis for rating the hybrids in these tests, is not the only characteristic to consider when appraising a hybrid. Days required to reach maturity, resistance to ear rots, and ability to stay erect until harvest are also important. Even tho some of the fields in these tests were planted late and the grain, therefore, was not fully dry when harvested, the relative moisture content of one hybrid when compared with the others gives a good measure of its maturity.

The height at which the ear is borne on the stalk determines a hybrid's suitability for hand husking and also affects lodging resistance. This characteristic is influenced greatly by genetic constitution, soil fertility, and seasonal conditions.

Very few dropped ears were found in the 1944 test fields—so few that the records were not considered worth publishing.

SUMMARY

A total of 237 corn hybrids were tested on seven fields in Illinois in 1944. Nine of these hybrids were included in an additional test to determine their response to soils of two different levels of productivity. Eighteen hybrids were tested for their response to seed treatment and their resistance to ear rot. Wet weather delayed corn planting, yet good stands were obtained on all the test fields. The results of these tests were briefly as follows:

1. The field having the highest average yield, 91.6 bushels an acre, was the one at Sullivan in Moultrie county in south-central Illinois. The average acre-yields of the other test fields were: Galesburg, 91.2 bushels; Mt. Morris, 89.1 bushels; Milford, 88.0 bushels; Dixon Springs, bottomland, 48.5 bushels; Alhambra, 32.9 bushels; and Dixon Springs, upland, 22.0 bushels. The average yield of corn for all seven fields was 66.2 bushels an acre, which contrasts with 45 bushels as the average for the state as a whole. (The locations of these fields are shown in Table 1, page 456, and in the map on the front cover.)

2. The general level of yields on all the fields, considering the conditions of the test, clearly indicates that most commercial seedsmen are producing high-yielding hybrid seed corn.

3. The few white hybrids tested in northern and north-central Illinois did not yield well in comparison with the yellow hybrids; but in south-central, southern, and extreme southern Illinois a number of them appeared to be very well adapted.

4. Chinch bugs did more damage to corn than any other insect in 1944. Damage on the Alhambra field is reflected in the lighter test weights of some of the hybrids.

5. For the Sullivan field in Moultrie county in south-central Illinois, records were made of lodging that resulted from the feeding of the corn rootworm. From 4.3 to 45.7 percent of the plants lodged 30 degrees or more from this cause, tho comparatively few hybrids developed the more severe lodging.

6. Stalk-breaking caused by infestation with the European corn borer was recorded for the Mt. Morris field in Ogle county in northern Illinois and for the Milford field in Iroquois county in east north-central Illinois. Appreciable amounts of lodging due to borer attack were found on both fields, but there was considerably less lodging at Mt. Morris.

7. Corn earworm feeding was severe on the Robbs field at Dixon Springs in Pope county in the extreme southern part of Illinois. The comparatively high percentage of damaged corn on this field was due

to ear rot fungi which invaded the kernels that had been injured by earworms.

8. Losses from diseases were, in general, about average in 1944. No one disease was especially outstanding.

9. Seed of 18 hybrids treated with Arasan gave yields 3.2 bushels an acre above the average of untreated seed. Damage from kernel rot in these same hybrids ranged from 3.37 to 7.72 percent.

10. The same nine double-cross hybrids tested on soils of two different levels of productivity in 1943 were tested again under similar conditions in 1944. The average yield of the hybrids on the soil of high productivity was 109.8 bushels an acre, while it was only 54.8 bushels on the soil of medium productivity. Contrary to previous tests, all nine hybrids ranked, on the basis of total yield, in the same order on both fields. There was very little difference between the yields of the six adapted hybrids on either field. The three hybrids less well adapted to central Illinois—namely, Illinois 784, 751, and 101—were the three low-yielding hybrids on both fields.

The two-year averages of the results on these two fields show for Illinois 246 a significant difference in relative ranking on the two fields. This hybrid yielded relatively high on the highly productive soil and comparatively low on the medium productive soil.

PEDIGREES OF HYBRIDS

Following is a partial list of Experiment Station and U. S. hybrids. The performance of those that are starred is shown in this bulletin.

*Ill. 21 . . . . (WF9 × 38-11) (Hy × 187-2)
Ill. 23 . . . . (A × Tr) (R4 × Hy)
Ill. 29 . . . . (A × 90) (R4 × Hy)
Ill. 53 . . . . (WF9 × M14) (Pr × I205)
Ill. 99 . . . . (CC5 × CC7) (WF9 × CC1)
*Ill. 101 . . . (WF9 × M14) (CC7 × 187-2)
Ill. 105 . . . (38-11 × Kys) (G × L317)
*Ill. 126 . . . (WF9 × 38-11) (Tr × L317)
Ill. 139 . . . (WF9 × 38-11) (R4 × L317)
Ill. 172 . . . (R4 × Hy) (A × 540)
*Ill. 200 . . . (WF9 × 38-11) (K4 × L317)
*Ill. 200-1. . (WF9 × 38-11) (K4 × L317E)
*Ill. 201 . . . (WF9 × 38-11) (187-2 × L317)
*Ill. 206 . . . (WF9 × 38-11) (5120 × L317)
Ill. 212 . . . (WF9 × 38-11) (4-8 × 187-2)
Ill. 219 . . . (CC5 × CC7) (WF9 × Hy)
Ill. 227 . . . (WF9 × 38-11) (Hy × Tr)
Ill. 237 . . . (WF9 × K4) (Kys × 38-11)
*Ill. 246 . . . (WF9 × Hy) (187-2 × L317)
*Ill. 247 . . . (187-2 × 38-11) (Hy × L317)
Ill. 249 . . . (R4 × L317) (187-2 × 701)
Ill. 253 . . . (WF9 × 38-11) (R4 × 187-2)
Ill. 254 . . . (WF9 × 187-2) (R4 × Hy)
Ill. 255 . . . (WF9 × 38-11) (159L1 × 187-2)
Ill. 257-1. . (Hy × 187-2) (O7 × L317)
Ill. 262 . . . (WF9 × M14) (187-2 × L317)
*Ill. 269 . . . (CC10 × CC24) (WF9 × Hy)
Ill. 273 . . . (WF9 × 38-11) (187-2 × 701)
*Ill. 273-1. . (WF9 × 38-11) (187-2 × O7)
Ill. 274-1. . (WF9 × Hy) (187-2 × O7)
Ill. 279 . . . (WF9 × M14) (CC24 × 187-2)
Ill. 281 . . . (WF9 × A) (R2 × 187-2)
Ill. 285 . . . (WF9 × 38-11) (Hy × 540)
Ill. 288 . . . (WF9 × Hy) (K4 × 38-11)
Ill. 300 . . . (WF9 × R4) (Pr × I205)
Ill. 308 . . . (WF9 × M14) (4-8 × 187-2)
Ill. 319 . . . (WF9 × M14) (A × 90)
Ill. 350 . . . (WF9 × R4) (187-2 × L317)
Ill. 351 . . . (WF9 × 38-11) (R4 × Hy)
Ill. 371 . . . (A × L) (WF9 × Hy)
Ill. 374 . . . (R4 × Hy) (187-2 × L317)
Ill. 437 . . . (WF9 × Hy) (K4 × L317)
*Ill. 448 . . . (38-11 × Kys) (K4 × L317)
Ill. 500-1. . (WF9 × 38-11) (O7 × L317)
*Ill. 501 . . . (WF9 × 38-11) (Hy × 5120)
Ill. 507 . . . (A × 90) (WF9 × R4)
Ill. 565 . . . (38-11 × G) (K4 × L317)
Ill. 710 . . . (R4 × Hy) (Tr × L317)
*Ill. 713 . . . (WF9 × 38-11) (G × L317)
Ill. 716A. . (WF9 × 38-11) (Hy × L317)
*Ill. 751 . . . (A × 90) (WF9 × Hy)
Ill. 772 . . . (R4 × Hy) (159 × L317)
*Ill. 784 . . . (Hy × 5120) (K4 × L317)
*Ill. 804 . . . (5120 × 38-11) (K4 × L317)
Ill. 805 . . . (187-2 × 38-11) (K4 × L317)
Ill. 863 . . . . . (R4 ×Hy) (K4 × L317)
*Ill. 877 . . . . . (R4 × Pr) (K4 × L317)
Ill. 885A. . . . . (R4 × 38-11) (K4 × L317)
Ill. 899 . . . . . (CC5 × CC7) (R4 × WF9)
Ill. 944 . . . . . (WF9 × Hy) (R4 × L317)
*Ill. 960 . . . . . (R4 × Hy) (701 × L317)
*Ill. 972-1 . . . . . (WF9 × Hy) (O7 × L317)
*Ill. 1091A. . . . . (WF9 × M14) (Hy × 187-2)
*Ill. 1173 . . . . . (WF9 × Hy) (RR98 × 187-2)
*Ill. 1180 . . . . . (WF9 × M14) (CC10 × CC24)
Ill. 1183B. . . . . (WF9 × M14) (R2 × CC10)
Ill. 1195 . . . . . (WF9 × CC10) (CC7 × 187-2)
Ill. 1206 . . . . . (WF9 × R2) (CC7 × 187-2)
Ill. 1207 . . . . . (WF9 × 38-11) (K179 × K180)
*Ill. 1233 . . . . . (WF9 × 38-11) (940 × L317)
*Ill. 1233-1 . . . . . (WF9 × 38-11) (940 × L317E)
Ill. 1234 . . . . . (WF9 × CC10) (R2 × 187-2)
Ill. 1236 . . . . . (WF9 × M14) (CC10 × 187-2)
*Ill. 1238B. . . . . (38-11 × 940) (WF9 × G)
*Ill. 1239 . . . . . (K166 × L317) (297 × 38-11)
Ill. 1240 . . . . . (WF9 × M14) (R2 × 187-2)
Ill. 1242 . . . . . (WF9 × CC10) (R2 × CC35)
*Ill. 1243 . . . . . (297 × 38-11) (K180 × K4)
Ill. 1250 . . . . . (WF9 × M14) (R2 × L317)
Ill. 1252 . . . . . (WF9 × CC10) (R2 × L317)
Ill. 1255 . . . . . (WF9 × M14) (CC35 × Y82)
*Ill. 1257 . . . . . (WF9 × 38-11) (557 × L317)
Ill. 1260 . . . . . (WF9 × M14) (R2 × CC35)
Ill. 2000(W) . . . . (CI.24 × CI.61) (33-16 × Ky27
Ill. 2003(W) . . . . (K6 × 33-16) (CI.43 × CI.61)
Ill. 2007(W) . . . . (CI.43 × K6) (Ky27 × CI.61)
Ill. 2016(W) . . . . (33-16 × B103) (K6 × CI.61)
Ill. 2018(W) . . . . (Ky27 × R30) (CI.43 × CI.61)
*Ill. 2019A(W) . . . (Ky27 × CI.61) (R30 × 33-16)
Ill. 2020(W) . . . . (Ky27 × R30) (K6 × CI.61)
Ill. 2023B(W) . . . (Ky27 × CI.24) (K6 × 33-16)
Ill. 2043(W) . . . . (33-16 × K6) (Ky27 × CI.43)
*Ill. 2059(W) . . . . (Ky27 × CI.61) (33-16 × K6)
*Ill. 2077(W) . . . . (33-16 × CI.61) (Ky27 × CI.43
Ill. 2097(W) . . . . (CI.43 × 33-16) (Ky27 × R30)
Ill. 2117(W) . . . . (Ky27 × CI.61) (H21 × 33-16)
*Ill. 2119(W) . . . . (Ky27 × CI.61) (33-16 × K64)
*Ill. 2120(W) . . . . (Ky27 × CI.61) (K6 × K64)
Ill. 2159(W) . . . . (Ky27 × CI.61) (H21 × K64)
Ill. 2162(W) . . . . (4Co63 × 4Co82) (R47 × R49)
Ill. 2181(W) . . . . (33-16 × Ky27) (H21 × K64)
Ill. 2184(W) . . . . (K6 × K64) (33-16 × CI.61)
*Kans. 1583 . . . . . (Kys × 201C) (K4 × 38-11)
*Kans. 1585 . . . . . (K155 × 201C) (K4 × 38-11)
*Kans. 2234(W). . (K41 × K55) (K63 × K64)
*Kans. 2275(W). . (K55 × K64) (Ky27 × ~~38-11~~)3
*Wis. 645 . . . . . (CC5 × CC7) (CC1 × WF9)
*U.S. 13. . . . . (Hy × L317) (WF9 × 38-11)
*U.S. 35. . . . . (WF9 × 38-11) (R4 × Hy)
U.S. 44. . . . . (4-8 × 187-2) (Hy × 540)

~~*Kans. 2275(W)~~ is designated as a white hybrid altho one inbred in its pedigree ~~is yellow~~.

CONTRIBUTORS OF SEED

Appl Hybrids	Charles A. Appl & Son	St. Joseph
Blackhawk Hybrids	Blackhawk Coop. Hybrid Corn Assn.	Polo
Crow Hybrids	Crow Hybrid Corn Co.	Milford
DeKalb Hybrids	DeKalb Agricultural Assn.	DeKalb
Doubet Hybrids	E. W. Doubet	Hanna City
Embro Hybrids	Ed. F. Mangelsdorf & Brother	St. Louis, Mo.
Farmcraft Hybrids	Farmcraft Seed Co.	Oxford, Ind.
Ferris Hybrids	Ferris Hybrids	Princeton
Frey Hybrids	Frey Hybrid Corn Co.	Gilman
Funk Hybrids	Funk Brothers Seed Co.	Bloomington
Henley-Whisnand Hybrids	Myron Whisnand	Arcola
Holmes Utility Hybrids	C. W. & Z. M. Holmes	Edelstein
Hoosier-Crost Hybrids	Edw. J. Funk & Sons	Kentland, Ind.
Illinois Hybrids	Ill. Agr. Exp. Sta.	Urbana
	Ill. Crop Improvement Assn.[a]	Urbana
Iowealth Hybrids	Michael-Leonard Seed Co.	Normal
Kansas Hybrids	Kansas Agr. Exp. Sta.	Manhattan, Kan.
Kelly Hybrids	Kelly Seed Co.	San Jose
Lowe Hybrids	L. L. Lowe	Aroma Park
Miller Hybrids	B. A. Miller & Son	Forrest
Moews Hybrids	B. E. Moews	Granville
Morgan Hybrids	Morgan Brothers	Galva
Morton Hybrids	Roy A. Morton & Son	Bowen
National Hybrids	National Hybrid Corn Co.	Hudson
Nichols Hybrids	Nichols Brothers	Hebron
Null Hybrids	Null Seed Farms	Colchester
Pfeifer Hybrids	George L. Pfeifer	Arcola
Pfister Hybrids	Pfister Assoc. Growers	El Paso
Pioneer Hybrids	Pioneer Hi-Bred Corn Co.	Princeton
Producers' Hybrids	Producers' Crop Imp. Assn.	Piper City
Seeber Hybrid	Seeber Brothers	Champaign
Sibley Hybrid	Sibley Farms	Sibley
Sieben Hybrids	Sieben Hybrids	Geneseo, R. 1
Stewart Hybrid	Frank S. Stewart	Princeville, R. 1
Stiegelmeier Hybrids	H. L. Stiegelmeier	Normal
U. S. Hybrids	Ill. Crop Improvement Assn.[a]	Urbana
Wisconsin Hybrid	Ill. Crop Improvement Assn.[a]	Urbana

[a]Seed supplied by the Association was obtained from samples of the hybrids submitted in 1943 for the laboratory test required for certification.

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