

THE UNIVERSITY OF ILLINOIS LIBRARY

630.7 IfGb no. 022-032 cop. 2

MEMONIAL

NOTICE: Return or renew all Library Materials! The Minimum Fee for each Lost Book is \$50.00.

The person charging this material is responsible for its return to the library from which it was withdrawn on or before the **Latest Date** stamped below.

Theft, mutilation, and underlining of books are reasons for disciplinary action and may result in dismissal from the University. To renew call Telephone Center, 333-8400

UNIVERSITY OF ILLINOIS LIBRARY AT URBANA-CHAMPAIGN

MUG 0 5 1999



8050-7-36-9848

•

.

•

ILLINOIS CORN PERFORMANCE TESTS . . . Results for 1935



University of Illinois

• Agricultural Experiment Station Bulletin 427

In cooperation with the Division of Cereal Crops and Diseases, Bureau of Plant Industry, U. S. Department of Agriculture, and the Illinois State Natural History Survey

CONTENTS

PA	٩GE
SCOPE OF THE TESTS 2	83
LOCATION OF FIELDS AND SELECTION OF SOIL TYPES 2	84
SEASONAL CONDITIONS 2	88
INSECT PROBLEMS 2	89
EXPERIMENTAL METHODS 2	90
RESULTS OF PERFORMANCE TESTS 2	93
Results of Grain Tests 2	94
Results of Soil-Adaptation Tests 2	:94
Results of Silage Tests 3	14
Hybrids Tested for Two Years 3	17
Performance of Second-Generation Hybrid Seed 3	17
SUMMARY 3	
APPENDIX 3	23

.

,

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

Illinois Corn Performance Tests

Results for 1935

By G. H. DUNGAN, J. R. HOLBERT, W. J. MUMM, J. H. BIGGER, and A. L. LANG¹

Better STRAINS of corn are needed in all sections of Illinois—strains that not only are more resistant to lodging and capable of higher yields, but are of better quality, more resistant to disease, drouth, cold, and insect pests, and are capable of using most advantageously the available supplies of plant nutrients in the soil. Workers interested in these different phases of corn improvement are cooperating in the development and testing of many hybrids and in the distribution of seed of these hybrids and their parent strains that are best adapted to the varying conditions obtaining in the different sections of the state.

The performance tests reported herein are part of a coordinated corn-improvement program conducted by the Illinois Agricultural Experiment Station in cooperation with the Division of Cereal Crops and Diseases, Bureau of Plant Industry, U. S. Department of Agriculture, and the Illinois State Natural History Survey. The present report is the second to be published, the results of the 1934 tests having been reported in Bulletin 411 of this Station.

SCOPE OF THE TESTS

Two hundred seventy-four different kinds of corn were tested on fifteen fields in 1935. Of these, 46 were open-pollinated varieties, 26 were composite samples made by mixing equal quantities of seed collected from several farmers in the immediate neighborhood of the testing field, and 202 were hybrids. The hybrid entries were predominantly double crosses but a few three-way crosses and top crosses were also included.

In the accompanying tables these entries are grouped into two general classes designated as "Regular" and "Experimental." The

¹G. H. DUNGAN, Chief in Crop Production, Illinois Agricultural Experiment Station; J. R. HOLBERT, Senior Agronomist, Division of Cereal Crops and Diseases, Bureau of Plant Industry, U. S. Department of Agriculture; W. J. MUMM, Associate in Plant Breeding, Illinois Agricultural Experiment Station; J. H. BIGGER, Field Entomologist, Illinois State Natural History Survey; and A. L. LANG, Assistant Chief in Soil Experiment Fields, Illinois Agricultural Experiment Station.

regular entries comprize those that may be considered as being in commercial production, 100 bushels or more of seed being available for planting in 1936 or having been available in that amount in previous years. The composite samples also were placed in the regular group, since the varieties represented in these seed mixtures were being grown commercially.

In the experimental group are included those hybrids of which only small amounts of seed are available and which, for this reason, are not available for commercial planting.

The composite samples of open-pollinated corn were considered representative of the general level of the corn ordinarily grown in the community. For the most part these samples were furnished by the agricultural department of the local high school, 24 half-pint samples of untreated shelled corn being taken from different lots of seed in the neighborhood.

At least five of the best locally adapted open-pollinated varieties were included in each field except at Dundee, where there were only four open-pollinated entries. The performance of these entries furnishes a standard for evaluating that of the hybrids.

A list of the various entries and the names of those who contributed seed for them is given on pages 339 and 340.

LOCATION OF FIELDS AND SELECTION OF SOIL TYPES

Illinois extends so far north and south that it cuts across corngrowing areas having many varying characteristics. In selecting the locations for the testing fields the aim was therefore to include areas representing in a broad way the different conditions of soil and climate existing in the various sections of the state. No conscious effort was made to choose especially productive fields for these tests, but in selecting readily accessible places and good, cooperatively-minded farmers, some fields having a high productivity level were obtained.

The accompanying map (Fig. 1) shows the location of the testing fields. Some general information about these fields is given in Table 1.

In locating the test fields for 1935 an attempt was made to select soil types that occur extensively in the regions in which the tests were being made.¹ Furthermore care was used in selecting the testing area within each field to obtain as much uniformity as possible with regard

^{&#}x27;Herman Wascher, Assistant Chief, Soil Survey, helped to locate the fields with respect to character of soil.

to soil type and drainage conditions. A relatively smooth portion of the field, nearly level or at most only gently sloping, was chosen in order to avoid poorly drained or eroded spots.

Twelve of the fifteen grain testing fields were on soils having a dark-colored surface horizon. Of the other three fields, two (Edgewood and Alhambra) were on claypan soils having a surface that is considered relatively dark colored for the particular region in which



FIG. 1.-LOCATION OF 1935 TESTING FIELDS

each occurs, but the results obtained should hold true for the other claypan soils in these regions. At Alhambra the tests were located on the permanent University crop experiment field, which is mapped as Putnam silt loam. "Slick spots" are numerous on this field.

General information on the soil type, drainage characteristics, and soil treatments for each testing field are given in Table 2. Drainage is described as "rapid," "moderate," and "slow." "Moderate" is used to characterize conditions of optimum drainage, that is, when the

1936]

	yield, ries	Sound	bu.	43.1	80.9	84.0	98.9	82.1	100.8	82.3	1.2.1	2.02	49.7	49.5	47.6	49.0	tons	•	•	bu.	79.6	46.0	93.4 80.1
35	Average yield, all entries	Total	bu.	44.1	87.1	86.1	102.2	83.9	104.0	83.9	13.8	71 K	52.7	52.8	48.2	51.1	tons	2.83	4.43	bu.	81.3	48.2	94.5 81.1
NCE TESTS, 19.	Date	narvesteu -		Nov. 12	Nov. 19 Nov. 20	Nov. 21	Nov. 13	Nov. 14	Nov. 5	Nov. 25	Nov. 21	Nov. 15	Nov. 22	Dec. 3	Nov. 6	Nov. 21		Sept. 24	Sept. 17-24		Nov. 5	Nov. 6	Nov. 26 Nov. 27
DRN PERFORMA	Date	bianten		June 1	May 14 May 11	May 21	May 23	May 17	May 20	June 4	May 30	June 3	May 31	Iune 7	June 4	June 6		June 1	May 8-15				May 26 May 30
ATIVE CC	Number of entries	in test		24	55 40	52	09	20	93	26	4.5	64	43	42	27	31		24	17		20	20	18 18
TABLE 1GENERAL INFORMATION: ILLINOIS COOPERATIVE CORN PERFORMANCE TESTS, 1935	Cooperator			M. G. Clark.	Homer Curtiss	William Webb and Son	L. L. Angevine.	Benard Moews.	John Hahn	Harvey Herndon	Units Warsaw and Sons	Fd Wilson	Charles Shuman	Illinois Station, Agronomy	F. V. Wilson and Son	Lorin Jack and Son		Anton and Harold Suchy	Illinois Station, Dairy		Sibley Estate, Farm 45	Sibley Estate, Farm 92	Illinois Station, S.W. rotation
BLE 1GENERAL	County			Kane	Jo Daviess	Will	Henry	Putnam.	Livingston	McDonough	WcLean	Scott	Moultrie	Madison	Effingham	Edwards		McHenry	Champaign	S	•••••••••••••••••••••••••••••••••••••••	••••••	Champaign Champaign
TA	Location of	non	Grain tests	Dundee.	Stockton Rochelle	Plainfield	Cambridge	Granville	Dwight	Adair	Armstrong	Winchester	Sullivan.	Alhambra	Edgewood	Albion	Silage tests	Algonquin	Urbana	Soil-adaptation test	Sibley	Sibley	Urbana Urbana

.

[December,

Surface characteristics Subsoil characteristics	Acidity Phosphorus	Previous crop
	nosphorus	and treatment
Northeastern		
oam (24) Yellowish gray silt loam Medium-plastic silty clay loam	Medium Low	Barley, manured
Northern		
am (26)		
Light brown silt loam Slightly plastic clayey silt loam	None Medium +	Alfalfa limed, good rotation
ilt loam (41) Brown silt loam Medium-plastic silty clay loam	Strong Low	Soybeans, manured
t loam (149) Brown silt loam Medium-plastic silty clay loam	Medium Low	Small grain, good rotation
North-central		
e silt loam (41) Brown silt loam Medium-plastic silty clay loam	Medium Low	Clover, timothy pasture
silt loam (41) Dark brown silt loam Medium-plastic silty clay	Slight Low	Good rotation
loam pam (149) Brown silt loam Medium-plastic silty clay loam	None Low	Soybeans, heavily manured
Central		
Slightly plastic silty clay loam clay loam (152) Brown to black silty clay	Slight Low Medium	Alfalfa sod Corn, soybeans
Medium-plastic silty clay loam	Low	
<i>loam (146)</i> Brown silt loam Medium-plastic clay loam	None High	Small grain
	Yellowish gray silt loam Medium-plastic silty clay loam Northern am (36) Light brown silt loam Slightly plastic clayey silt loam (41) Brown silt loam Medium-plastic silty clay loam t loam (149) Brown silt loam Medium-plastic silty clay loam North-central <i>e silt loam</i> (41) Brown silt loam Medium-plastic silty clay loam Silt loam (41) Dark brown silt loam Medium-plastic silty clay loam <i>oam</i> (149) Brown silt loam Medium-plastic silty clay loam <i>Central</i> <i>loam</i> (41) Brown to light brown silt loam Slightly plastic silty clay loam <i>Central</i> <i>loam</i> (152) Brown to black silty clay loam <i>loam</i> (146) Brown silt loam Medium-plastic silty clay loam <i>loam</i> (146) Brown silt loam Medium-plastic clay loam	Yellowish gray silt loam Medium-plastic silty clay loam Northern am (36) Light brown silt loam Slightly plastic clayey silt loam (41) Brown silt loam Medium-plastic silty clay loam North-central e silt loam (41) Brown silt loam Medium-plastic silty clay loam North-central e silt loam (41) Brown silt loam Medium-plastic silty clay loam North-central e silt loam (41) Brown silt loam Medium-plastic silty clay loam Slight Medium-plastic silty clay loam Slight Medium-plastic silty clay loam Slight Medium-plastic silty clay loam Medium-plastic silty clay Medium Medium-plastic silty clay loam Medium-plastic silty clay loam Medium-plastic silty clay Medium Medium-plastic silty clay Medium-plastic silty clay Medium-plast

TABLE 2.—SOIL CHARACTERISTICS OF GRAIN TESTING FIELDS, ILLINOIS CORN PERFORMANCE TESTS

Surface characteristics Subsoil characteristics	Acidity Phosphorus	Previous crop and treatment
South-central		
silt loam, terrace (81)		
Brown silt loam		Corn
Medium-plastic silty clay loam		
oam (154)		
Brown silt loam		Soybeans
Medium-plastic silty clay loam	•••••	-
Southern		
ilt loam, slick spots (112)		
Brownish gray silt loam,	None	Good rotation, limestone.
	High	phosphate
	8	
Grav silt loam	None	Manure
Medium-plastic clay loam	Low	
Southeastern		
clav loam, terrace (126)		
	None	Sweet clover
Medium-plastic silty clay loam		
	Subsoil characteristics South-central silt loam, terrace (81) Brown silt loam Medium-plastic silty clay loam mam (154) Brown silt loam Medium-plastic silty clay loam Southern ilt loam, slick spots (112) Brownish gray silt loam, numerous gray spots Plastic clay loam loam, deep phase (166) Gray silt loam Medium-plastic clay loam Southeastern clay loam, terrace (126) Black silty clay loam Medium-plastic silty clay	Subsoil characteristics Phosphorus South-central South-central silt loam, terrace (81) Brown silt loam Medium-plastic silty clay loam Brown silt loam Medium-plastic silty clay loam Brown silt loam Medium-plastic silty clay loam Southern ilt loam, slick spots (112) Brownish gray silt loam, numerous gray spots Plastic clay loam Plastic clay loam High loam, deep phase (166) Gray silt loam None Medium-plastic clay loam Low Southeastern clay loam, terrace (126) Black silty clay loam None Medium-plastic silty clay

TABLE 2.—SOIL CHARACTERISTICS OF	GRAIN TESTING FIELDS, concluded
----------------------------------	---------------------------------

slope of the land is such as to furnish satisfactory run-off with a minimum of erosion. Moderate underdrainage indicates relatively free movement of excess ground water to tile but retention of sufficient moisture for normal plant growth. "Rapid" surface drainage indicates a tendency to erode, while "slow" indicates slow surface movement, which condition, however, may not necessarily be harmful if underdrainage is good and tile have been provided. Rapid underdrainage would indicate the existence of a drouthy condition, while slow underdrainage indicates that the subsoil is sufficiently impervious to the movement of moisture to be harmful.

SEASONAL CONDITIONS

The growing season of 1935 was characterized by extremely unfavorable weather conditions in both spring and fall. Thruout most of the state corn planting was very much delayed by a cold, wet period lasting from the middle of April until almost the first of June, altho in the northern and northeastern sections of the state this difficulty was not serious. The planting dates recorded in Table 1 reflect the influence

of the late spring. After planting, growing conditions were generally favorable. A period of scant rainfall occurred during July and August, but there was apparently enough soil moisture for vigorous development of the plants. On September 28 the minimum temperature in central Illinois was 32° F. Another cool period occurred during the first week in October. On October 4 the minimum was 25° F. On October 6 it was 24° F. This freezing stopped the development of most of the varieties and hybrids and materially shortened the growing season.

Seasonable weather followed the cold period, but November and December were wet and cold. Harvesting was seriously interfered with, and a poor quality of grain resulted wherever corn was lodged.

Altho the moisture content of the corn was high during the autumn, and many of the ears in the central and southern sections of the state were on the ground as a result of severe lodging, the amount of corn damaged by ear rots was much below normal. The most injury occurred in the northern section.

INSECT PROBLEMS

The chinch bug, which so reduced corn yields in 1934, was checked by the unusual seasonal conditions of April, May, and June, 1935, and did not become a serious handicap to corn production. The same seasonal conditions were, however, favorable to the development of another insect pest, the southern corn rootworm, *Diabrotica duodecimpunctata* Fab. This insect is usually abundant during wet seasons and the years following wet seasons. It was abundant at Cambridge and in the entire central, south-central, and southern sections of the state. In these fields the lodging which occurred was largely caused by rootworm injury, altho some of it was due to stalk breaking.

The southern corn rootworm hibernates as an adult and emerges during April and May to deposit its eggs in fields where a crop is growing. The crop may be grass, clover, alfalfa, sweet clover, a weed patch, or early corn. Wet fields or wet spots in fields are preferred. When fields where eggs have been deposited are plowed up and corn planted within a week or two, the larvae attack the small corn plants, eating on the roots and base of the stalk and often burrowing into the heart and killing the growing point. At this stage the rootworm larva is commonly known as the "budworm" and may be responsible for killing much corn in a field. Feeding on the corn roots continues until

1936]

BULLETIN No. 427

the middle of July. This later feeding cuts off much of the root system and opens the way for the entrance of root rot organisms which complete the killing of the root in disease-susceptible varieties or hybrids. During August affected plants will lodge badly.

The southern corn rootworm is not controlled by crop rotation nor by generally accepted soil-improvement practices. It may be partially controlled by fall or early spring plowing, followed by frequent cultivation and delayed planting. In 1935 many hybrids proved resistant to the attack of this insect.

Many hybrids were also both resistant to rootworm and high yielding. Illinois Hybrids 360 and 960, for example, were resistant to lodging and produced large yields of sound corn both in the central and in the north-central sections of the state. Furthermore, the 1935 results taken in conjunction with the 1934 records¹ reveal that certain hybrids, such as Illinois Hybrid 172, not only were high yielding and resistant to rootworms but also resistant to chinch bugs. Certain others, such as Illinois Hybrid 391, were high yielding and resistant to chinch bugs but were susceptible to lodging following rootworm attack.

Thus these corn performance tests are demonstrating, among other things, the most desirable strains of corn to use where certain insects must be coped with.

EXPERIMENTAL METHODS

The methods of conducting the 1935 tests were similar to those used in 1934, but the method of expressing the relative performance rating differs somewhat from that of the previous year, being somewhat simpler. The planting and rating methods are described below.

Method of Planting

In order that the trials might be carried on under actual farm conditions, the test plots were located within a larger cornfield. The test corn was planted by hand on the day the rest of the field was planted. The rows were joined with those of the surrounding corn so that the test plots could be cultivated along with the rest of the field.

On most fields each entry (variety or hybrid) occupied 10 plots, each plot being 12 hills long and 2 rows wide. The planting arrangement shown in Fig. 2 is typical of that used in the tests where there were 10 series of plots. Each entry occurred once in each series, with the exception of a few that were planted for a preliminary test and

¹Reported in Bulletin 411 of this Station.

1936]

Illinois Corn Performance Tests 1935

			<u> </u>		—	<u> </u>	1	Г	Г	r-	Г	Г	Г		Г		_		r	<u> </u>	<u> </u>	1	Г	Г	T	—	<u> </u>	<u> </u>	<u> </u>	r	T	T	1	<u> </u>	-	r-	T	Т
5	17	3	40 B	36	20	38 B	35	24	39	13	33	7	23	26	·	İ		14	25	4	29	28	6	10	27	22	16	12	21	3	8	1	15	30	18	2	34	13
33	38 A	37	30	35	5	18	14	23	4	40 A	12	15	1	36				27	17	24	34	22	9	21	29	31	10	19	28	11 A	3	26	39	7	8	25	20	
															F	₹•:	3																				-	
39	14	28	1	23	16	22	26	34	11 B	36	17	35	18	21	25	33	15	13	3	5	7	31	8	38 B	2	37	27	32	29	20	12	10	4	6	19	30	24	5
36	26	7	24	11 A	13	9	2	33	38	18	8	32	6	31				35	14	15	37	10	40 A	19	16	20	5	17	23	3	22	34	29	27	21	12	28	
																	5		-			-																t
10	9	29	34	31	19	3	21	6	12	16	27	22	11 B	13				17	40 B	33	38 B	30	32	26	28	1	7	24	39	2	25	14	5	20	23	35	15	3
2	6	21	6	29	37	27	25	1	31	32	19	5	3	9	34	7	22	12	20	11 A	35	13	23	39	4	24	15	30	36	18	40 A	33	38 A	28	17	14	26	1
23	35	1	15	39	32	26	22	5	29	17	14	37	20	28		İ		4	36	27	21	19	12	30	11	18	33	8	25	13	9	16	2	24	40	3	7	3
_		-			_								-			В	-	_			-				8			_	-	_	-	-		_	-	_	-	ŀ
12	22	18	6	33	2	28	19	27	15	10	25	30	40 A	4				24	26	8	32	9	34	7	13	14	35	37	1	38 A	17	31	23	21	16	39	29	3
						1									C). 0.0	2																					
32	15	19	25	7	4	14	30	20	9	8	38 B	29	16	10				21	2	12	39	6	5	3	36	17	34	40 B	22	26	13	35	37	18	27	1	11 8	3.
															F	 २ -1	0																					
20	30	8	10	17	21	12	3	7	28	37	2	39	34	24	26	9	29	40 A	18	1	16	23	35	25	33	15	4	6	14	31	11 A	32	19	36	5	38	22	1:
	33 39 36 10 22 12 12 32	33 38 A 39 14 36 26 10 9 2 6 23 35 12 22 32 15	33 38 37 39 14 28 36 26 7 10 9 29 2 6 21 23 35 1 12 22 18 32 15 19	B 33 36 37 30 34 28 1 36 37 39 14 28 1 36 36 26 7 24 1 36 26 7 24 1 10 9 29 34 2 1 2 6 21 6 1 1 22 6 21 6 1 1 12 22 18 6 32 15 19 25 32 15 19 25 15 19 25	B B 33 36 37 30 35 39 14 26 1 23 36 26 7 24 11 36 26 7 24 11 36 26 7 24 11 10 9 29 34 31 2 6 21 8 29 23 35 1 15 39 12 22 18 6 33 32 15 19 25 7	B A	B I B I S I S I S I S I S I S I S I	B B B 33 36 37 30 35 5 18 14 39 14 28 1 23 16 22 26 36 26 7 24 11 13 9 2 36 26 7 24 11 13 9 2 10 9 29 34 31 19 3 21 2 6 21 6 29 37 27 27 23 35 1 15 39 32 26 22 12 22 18 6 33 2 26 19 32 15 19 25 7 4 14 30	B B B 33 36 37 30 35 5 18 14 23 39 14 28 1 23 16 22 26 34 36 26 7 24 11 13 9 2 33 10 9 29 34 31 19 3 21 6 2 6 21 6 29 37 27 25 1 23 35 1 15 39 32 26 22 5 12 22 18 6 33 2 28 19 27 32 15 19 25 7 4 14 30 20	B A B A A B A A B A A B A A A A A A A A B A B A	B B B A 33 36 37 30 35 5 18 14 23 4 40 39 14 28 1 23 16 22 26 34 11 36 36 26 7 24 11 13 9 2 33 38 18 36 26 7 24 11 13 9 2 33 38 18 10 9 29 34 31 19 3 21 6 12 16 2 6 21 6 29 37 27 25 1 31 32 23 35 1 15 39 32 26 22 5 29 17 12 22 18 6 33 2 28 19 27 15 10 32 15	B B A 33 36 37 30 35 5 18 14 23 4 40 12 34 37 30 35 5 18 14 23 4 40 12 36 26 7 24 11 13 9 2 33 38 18 8 10 9 29 34 31 19 3 21 6 12 16 27 2 6 21 8 29 37 27 25 1 31 32 19 23 35 1 15 39 32 26 22 5 29 17 14 12 22 18 6 33 2 26 19 27 15 10 25 32 15 19 25 7 4 14 30 20	B B B A	33 36 37 30 35 5 18 14 23 4 40 12 15 1 33 36 37 30 35 5 18 14 23 4 40 12 15 1 34 4 28 1 23 16 22 26 34 11 36 17 35 18 36 26 7 24 11 13 9 2 33 38 18 8 32 6 10 9 29 34 31 19 3 21 6 12 16 27 22 11 10 9 29 34 31 19 3 21 6 12 16 27 22 11 2 6 21 6 29 37 27 25 1 31 32 19 5	33 36 37 30 35 5 18 14 23 4 40 12 15 1 36 33 36 37 30 35 5 18 14 23 4 40 12 15 1 36 39 14 26 1 23 16 22 26 34 11 36 17 33 18 21 36 26 7 24 11 13 9 2 33 38 18 8 32 6 31 10 9 29 34 31 19 3 21 6 12 16 27 22 11 13 2 6 21 6 29 37 27 25 1 31 32 15 3 9 23 35 1 15 39 32 26 27	5 17 3 40 36 20 38 35 24 39 13 33 7 23 26 11 33 36 37 30 35 5 16 14 23 4 40 12 15 1 36 2 33 36 37 30 35 5 16 14 23 4 40 12 15 1 36 2 36 A 1 23 16 22 26 34 11 36 1 35 18 12 15 1 36 2 36 26 7 24 11 13 9 2 33 38 16 8 32 6 31 39 10 9 29 34 31 19 3 21 6 12 16 27 22 11 13 18 2 6 21 8 29 37 27 25 1 31<	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	B B B B R	5 17 3 40 36 20 38 35 24 39 13 33 7 23 26 11 37 19 14 33 30 37 30 35 5 16 14 23 4 40 12 15 1 36 2 16 32 27 39 14 26 1 23 16 22 26 34 11 36 17 35 18 21 25 33 15 13 39 2 2 33 38 18 8 32 6 31 39 30 1 35 10 9 29 34 31 19 3 21 6 12 16 27 22 11 13 18 8 36 17 2 6 21 6 29 37 27 25 1 31 32 19 5 3 9 34 7 22 12 2 33 35 1 15 39 32 26 22 5 29 17 14 37 20 28 10 38 6 4 R-7 2 33 1 15 19 25 7 4 14 30 20 9 8 38 29 16 10 31 28 23 21 R-9 32 15 19 25 7 4 14 30 20 9 8 38 29 16 10 31 28 23 21 R-10 20 30 8 10 17 21 12 3 7 28 37 2 39 34 24 26 9 29 40	5 17 3 40 36 20 36 35 24 39 13 33 7 23 26 11 37 19 14 25 33 36 37 30 35 5 18 14 23 4 40 12 15 1 36 2 16 32 27 17 39 14 26 1 23 16 22 26 34 11 36 17 35 18 21 25 33 15 13 3 36 26 7 24 11 13 9 2 33 38 16 8 32 6 31 39 30 1 35 14 10 9 29 34 31 19 3 21 6 12 16 27 22 11 13 18 8 36 17 40 10 9 29 34 31 19 3 21	5 17 3 40 36 20 36 35 24 39 13 33 7 23 26 11 37 19 14 25 4 33 36 37 30 35 5 18 14 23 4 40 12 15 1 36 2 16 32 27 17 24 33 36 37 30 35 5 18 14 23 4 40 12 15 1 36 2 16 32 27 17 24 36 16 28 7 24 11 13 9 2 33 36 18 8 32 6 31 39 30 1 35 14 15 36 26 7 24 11 13 9 2 33 36 18 8 36 17 40 33 10 9 29 34 31 19 3 <td< td=""><td>5 17 3 40 36 20 36 35 24 39 13 33 7 23 26 11 37 19 14 25 4 29 33 36 37 30 35 5 16 14 23 4 40 12 15 1 30 2 26 7 17 24 34 39 14 26 1 23 16 22 26 34 11 36 17 35 18 21 25 33 15 13 3 5 7 36 26 7 24 11 13 9 2 33 38 18 8 32 6 31 39 30 1 35 14 15 37 36 26 7 24 11 13 9 2 33 38 18 8 32 6 31 39 30 1 35 14 15 37</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>5 17 3 40 36 20 36 35 24 39 13 33 7 23 26 11 37 19 14 25 4 29 28 6 10 33 38 37 30 35 5 18 14 23 4 40 12 15 1 36 2 16 32 24 17 24 34 22 9 21 33 38 7 23 16 22 26 34 11 36 17 35 16 21 25 33 15 13 3 5 7 31 8 8 36 26 7 24 11 13 9 22 11 13 18 8 36 17 40 33 38 30 32 26 31 39 30 1 35 14 15 37 10 40 19 10 9 29 34 <</td><td>5 17 3 40 36 20 38 35 24 30 13 33 7 23 26 11 37 19 14 25 4 29 28 6 10 27 33 36 37 30 35 5 18 14 23 4 40 12 15 1 36 2 16 32 27 17 24 34 22 9 21 21 21 25 33 15 13 3 5 7 31 8 8 2 21 16 21 21 11 15 19 10</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td></td<>	5 17 3 40 36 20 36 35 24 39 13 33 7 23 26 11 37 19 14 25 4 29 33 36 37 30 35 5 16 14 23 4 40 12 15 1 30 2 26 7 17 24 34 39 14 26 1 23 16 22 26 34 11 36 17 35 18 21 25 33 15 13 3 5 7 36 26 7 24 11 13 9 2 33 38 18 8 32 6 31 39 30 1 35 14 15 37 36 26 7 24 11 13 9 2 33 38 18 8 32 6 31 39 30 1 35 14 15 37	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	5 17 3 40 36 20 36 35 24 39 13 33 7 23 26 11 37 19 14 25 4 29 28 6 10 33 38 37 30 35 5 18 14 23 4 40 12 15 1 36 2 16 32 24 17 24 34 22 9 21 33 38 7 23 16 22 26 34 11 36 17 35 16 21 25 33 15 13 3 5 7 31 8 8 36 26 7 24 11 13 9 22 11 13 18 8 36 17 40 33 38 30 32 26 31 39 30 1 35 14 15 37 10 40 19 10 9 29 34 <	5 17 3 40 36 20 38 35 24 30 13 33 7 23 26 11 37 19 14 25 4 29 28 6 10 27 33 36 37 30 35 5 18 14 23 4 40 12 15 1 36 2 16 32 27 17 24 34 22 9 21 21 21 25 33 15 13 3 5 7 31 8 8 2 21 16 21 21 11 15 19 10	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					

FIG. 2.-DISTRIBUTION OF ENTRIES IN A PERFORMANCE TEST

291

[December,

appeared only once in each alternate series. In order to prevent the possibility of all the replications of an entry falling toward one side of the test field, the field was divided crosswise into 10 equal divisions, not shown in the diagram, and each entry appeared once in each of these divisions. Plot 27 has been blackened to show how, by this plan, the 10 replications of a single entry were distributed over the field and occurred also between different entries in the different replications.

Measuring Performance of Entries

Departing somewhat from the method followed in 1934, the entries were rated in 1935 according to two measures of performance lodging resistance (ability to stand up) and yield of sound corn.

Lodging Resistance.—Lodging resistance was measured in the following way. Just before harvest each plot on the field was examined and the percentage of erect plants estimated. This method did not separate lodging due to broken stalks from that due to weak roots. Stalks broken above the ears but otherwise erect were considered as erect. The percentage of erect plants for a given entry was then computed from the estimates of all the replications of that entry. The rating on relative lodging resistance is the ratio, expressed as percentage, of the percentage of erect plants for that entry to the average percentage of erect plants for all the entries on the field.

Sound Yield.—In order to get as good a measure as possible of the resistance of the entries to ear rot, the corn in the grain tests was harvested late in the season. The entire yield from one replication, and in some cases from two replications, of each entry was shelled to determine shelling percentage. The corn was usually shelled on the day it was husked. In some cases, however, the ears were too moist to shell at harvest time, and these were dried with forced heated air and shelled later. All the shelled corn from a plot was poured thru a divider and a representative sample amounting to one-eighth of the original quantity obtained. This sample was divided into two equal lots, one of which was used for a moisture test, and the other dried and reserved for a determination of damaged corn.

Most of the moisture determinations were made with a Tag-Heppenstall moisture meter within a few days after the samples were taken. The corn from a few fields was too high in moisture to be tested by this apparatus. When this occurred the moisture was determined by drying in an electric oven at 100° C. for 48 hours.

The samples taken for determination of damaged corn were stored for a time in a heated dryer. The percentage of damaged kernels, by weight, was determined in a 200-gram sample of the grain, using the methods accepted for the determination of the Federal Grain Grades.¹

Data obtained over a period of years indicate that this method of determining the percentage of rotted grain and commercially sound grain gives more accurate and dependable results than ear counts. These data and a fuller description of the method have been published in a paper by Hoppe and Holbert.²

The acre-yield of sound corn was computed from the total acreyield and the percentage of sound corn.

The rating on sound yield is the ratio, expressed as percentage, of the yield of sound corn for that entry to the average yield of sound corn for all the entries on the field.

General Performance Rating.—In computing the general performance rating of an entry, the ratings for lodging resistance and sound corn were averaged, but the sound-corn rating was given three times the weight of the rating on lodging resistance, since differences in yield are more important than differences in lodging resistance.

RESULTS OF PERFORMANCE TESTS

In interpreting the results of tests such as these, one must keep in mind that a difference of one or two bushels in one year's yield of a given entry is not enough to insure that the entry will give consistently higher yields than another. This is indicated by the varying results from the different fields in a given section—a given entry will usually shift its rank to some extent, altho if high in one test it will probably be high in the other tests also, and the same holds true for the lowyielding entries. The statistical method used in analyzing the data for these tests (analysis of variance) indicates, however, that an entry which yields 5 bushels more than another is almost certainly superior to the other.

However, no matter how carefully a performance test is conducted, the results should be regarded as relative and not absolute. Just because an entry is not at the top in performance every year is no indication that it is not worth growing. The entries most likely to be satisfactory for commercial production are those that give consistently

1936]

¹Most of these separations were made under the supervision of P. E. Hoppe, Plant Pathologist, U. S. Department of Agriculture, Madison, Wisconsin.

²HOPPE, P. E., and HOLBERT, J. R. Methods used in the determination of relative amounts of ear rot in dent corn. Jour. Amer. Soc. Agron. 28, 810-819. 1936.

BULLETIN NO. 427

good performance with respect to yield and grain and stalk quality over a period of years. Many of the 1935 entries were enough higher than the average to make them worth growing even tho they were not at the top in performance rating.

RESULTS OF GRAIN TESTS

(Tables 3 to 10, pages 296-309)

Data on total yield of grain, sound corn, damaged corn, moisture in corn at harvest, and percentage of erect plants, together with performance ratings, are summarized in Tables 3 to 9, starting with the tests made in northeastern Illinois and moving south. More detailed data by individual fields, where more than one field was included in an area, are given in the Appendix, Tables 19 to 31.

A good standard with which to measure the performance of hybrid corn is the performance of adapted open-pollinated varieties commonly grown in the community. Data of this kind are summarized in Table 10, where the five highest hybrids on the fifteen fields are shown in comparison with the five best open-pollinated varieties.

In average yield of sound corn the five best hybrids exceeded the five best open-pollinated varieties by the following amounts per acre: 12.7 bushels in the northeast section; 17.6 in the northern section; 20.3 in the north-central section; 18.2 in the central section; 12.0 in the south-central section; 6.9 in the southern section; and 6.0 bushels in the southeastern section.

Thus while the best hybrids showed the greatest superiority in the north-central and central sections, in all sections they exceeded the yield of the adapted open-pollinated varieties sufficiently to indicate their possibilities. The best hybrids on the fifteen fields averaged 15 bushels of sound corn better than the adapted open-pollinated entries, and their general performance rating was greater by 24.3 points.

RESULTS OF SOIL-ADAPTATION TESTS

(Tables 11 and 12, pages 310-313)

Some of the better hybrids and open-pollinated varieties included in the regular performance tests in 1935 were tried out also on soils of different corn-producing capacities. The differences in the productivity of the plots was due either to characteristics inherent in the soil itself or to farming practices or to both.

Tests were made at Sibley on Elliott silt loam, a relatively poor corn soil, and at Urbana on Muscatine silt loam, a relatively good corn soil. At each location three fields were selected where previous corn records indicated comparatively low, medium, and high productivity. The data from only the high and low fields at each location are reported here, however, because the intermediate level was very near the high level in performance.

In the Sibley test (Table 11) the high level of productivity is represented by Farm 45 and the lower level by Farm 92. The area selected for the test on Farm 92 was higher, more eroded, and a much poorer grade of Elliott silt loam than that selected on Farm 45. The openpollinated corn on Farm 92 yielded an average of 45.7 bushels of sound corn an acre. The average yield of all entries, including 17 hybrids and 3 open-pollinated varieties, was only 46 bushels. In rating, as well as in yield of sound corn, the open-pollinated varieties ranked well among the hybrids. The highest yielding hybrid was only 6.2 bushels higher than a composite of open-pollinated corn produced by farmers on the Sibley Estate. Because of a favorable season the average yield of this area was much higher than would normally be expected.

On Farm 45 the total average yield for all the entries was 7.4 bushels more sound corn to the acre than the average yield of the open-pollinated entries. The best hybrid yielded 16.1 bushels more than the best open-pollinated variety.

The two areas selected for the Urbana tests (Table 12) are different in productivity because of the long-continued use of rotations which differ in their influence on production. Corn, oats, clover, and wheat, with a clover catch crop in the wheat, make up the Southwest rotation. Corn, corn, corn, and soybeans constitute the South-Central rotation. More limestone has been applied to the Southwest rotation; otherwise the supplementary treatments on these two areas have been very similar.

In the South-Central rotation the performances of the entries were very similar to those on Farm 45 at Sibley. The open-pollinated varieties averaged 68 bushels of sound corn, or 12.1 bushels less than the average of all entries.

In the Southwest rotation the open-pollinated varieties yielded an average of 76 bushels, or 17.4 bushels less than the average of all entries; the best hybrid yielded 28 bushels more than the best openpollinated entry. On the highly fertile land of this rotation area the lowest hybrid yield of sound corn was 6.0 bushels more than the best open-pollinated yield; whereas on the poorer soil of Farm 92 at Sibley the lowest hybrid yield was 13.7 bushels an acre less than the best open-pollinated yield.

(Further discussion of silage tests will be found on page 314)

		Acre-	Acre-yield	Damaged corn in	Moisture	Erect	Performance rating for—	ce rating	General
Nank	Anna	Total	Sound	shelled sample	1	plants	Lodging resistance [®]	Sound yield ^b	ance rating
	Rej	rular divisi	ion-entries	s in comme	Regular division—entries in commercial production	ио	•		
		bu.	bu.	perct.	perct.	perct.	perct.	perct.	
-	DeKalb Hvbrid 3A	57.5	56.8	1.22	34.1	85.0	109.4	131.5	126.0
7	Webb Will County Favorite.	52.3	51.1	2.29	36.7	45.0	57.9	118.3	103.2
ŝ	Illinois Hvbrid 368.	43.3	40.5	6.47	33.8	80.0	103.0	93.7	96.0
4	Gunn Western Plowman	41.7	41.2	1.20	32.0	66.7	85.9	95.4	93.0
	Average of 4 best open-pollinated var.	41.6	40.9	1.68	31.2	63.0	81.1	94.6	91.3
S	Eckhardt Golden King	37.0	36.3	1.89	25.1	68.3	87.9	84.0	85.0
9	Greenlee Yellow Dent.	35.4	34.9	1.41	30.9	72.0	92.7	80.8	83.8
	Average of division	44.5	43.5	2.25	32.1	69.5	89.5	100.6	97.8

TABLE 3.—NORTHEASTERN ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS AT DUNDEE, 1935

[December,

clud
Con
3.1
BLE
TAI

ed

1	Wisconsin Hybrid 11	54.7	54.4	.55	29.1	93.3	120.1	125.9	124.5
~	Wisconsin Hybrid 570	56.9	56.3	1.05	29.2	75.0	96.5	130.3	121.9
~	Wisconsin Hybrid 9	51.7	51.0	1.35	28.3	83.3	107.2	118.0	115.3
	Illinois Hybrid 746.	50.7	49.5	2.37	31.3	87.5	112.6	114.6	114.1
0	Wisconsin Hybrid 10.	51.9	50.9	1.93	27.7	75.0	96.5	117.8	112.5
	Wisconsin Hvbrid 525	46.0	45.7	.65	23.2	90.06	115.8	105.9	108.4
~	DeKalb Hvbrid 84.	46.9	46.3	1.28	24.0	80.0	103.0	107.2	106.2
~	DeKalb Hybrid 93.	49.5	47.5	4.04	32.5	70.0	90.1	109.9	105.0
_	DeKalb Hybrid 113.	42.9	42.5	.93	21.2	92.5	119.1	98.4	103.6
_	7	43.2	41.5	3.94	36.6	92.5	119.1	96.1	101.9
	Wisconsin Hvbrid 12.	44.0	43.6	.91	28.5	76.7	98.7	100.9	100.4
[]	DeKalb Hvbrid 38.	39.3	39.0	.76	38.3	0.06	115.8	90.3	96.7
	DeKalb Hvbrid 81.	45.1	44.0	2.44	31.0	0.09	77.2	101.8	95.7
	Wisconsin Hvbrid 531	40.2	40.1	.25	26.0	70.0	90.1	92.8	92.1
	Illinois Hybrid 44	37.5	35.5	5.33	36.6	85.0	109.4	82.2	89.0
_	DeKalb Hvbrid 210.	35.3	33.9	3.97	31.8	85.0	109.4	78.5	86.2
	Illinois Hvbrid 29.	35.1	33.2	5.41	36.6	81.7	105.2	76.8	83.9
	DeKalb Hybrid 372.	20.4	20.1	1.47	36.6	0.09	77.2	46.5	54.2
	Average of division	44.0	43.0	2.27	30.5	80.4	103.5	99.7	100.6
	Average of all entries	44.1	43.1	2.27	30.9	77.7	::	:	:

percentage of erect plants in all entries of the division. ^bThe performance rating for sound-corn yield is expressed as the ratio of the sound-corn yield of the entry to the average sound-corn

yield of all entries.

"General performance rating is an average of lodging resistance (percentage) and sound-corn yield (percentage), with sound-corn yield given three times the weight of lodging resistance.

Illinois Corn Performance Tests 1935

-		Acre-	Acre-yield	Damaged corn in	Moisture	Erect	Performance rating for—	nce rating	General
Kank	Entry —	Total	Sound	shelled sample	in grain at harvest	plants	Lodging resistance	Sound yield	- periorm- ance rating
	Reg	ular divisi	on-entrie	s in commer	Regular division—entries in commercial production	ion			
		bu.	bи.	perct.	perct.	perct.	perct.	perct.	
1	Illinois Hybrid 366	95.2	93.1	2.21	22.5	84.2	102.2	113.4	110.6
7	Illinois Hybrid 368	95.6	93.6	2.09	21.7	80.2	97.3	114.0	109.8
ę	Illinois Hybrid 172	97.0	92.1	5.05	22.6	84.0	101.9	112.2	109.6
4	Pioneer Hi-Bred 323	95.6	91.3	4.50	21.2	78.3	95.0	111.2	107.2
ŝ		87.8	85.9	2.16	21.0	86.3	104.7	104.6	104.6
9	Pioneer Hi-Bred 311	92.3	85.1	7.80	21.0	86.5	105.0	-103.7	104.0
1	Iowa Hybrid 931	89.0	86.8	2.47	20.5	78.4	95.1	105.7	103.1
∞	Funk Hybrid 215	88.4	83.0	6.11	23.7	84.2	102.2	101.1	101.4
6	Funk Hybrid 214	83.2	79.7	4.21	24.0	85.2	103.4	97.1	98.7
10	Simmons Will County Favorite	84.2	82.6	1.90	21.5	71.9	87.3	100.6	97.3
11	Pioneer Hi-Bred 351	79.7	76.0	4.64	21.2	91.2	110.7	92.6	97.1
12		81.8	79.3	3.06	21.8	70.4	85.4	96.6	93.8
13	Eckhardt Western Plowman	80.2	77.2	3.74	21.5	76.0	92.2	94.0	93.6
•	Average of 5 best open-pollinated var.	79.2	76.9	2.90	21.7	73.2	88.8	93.7	92.5
14	Evans Will County Favorite	75.0	72.6	3.20	21.6	74.6	90.5	88.4	88.9
15	Gunn Western Plowman	74.8	72.9	2.54	22.2	72.9	88.5	88.8	88.7
16	Community composite (Semesan Jr.)	75.7	72.5	4.23	22.0	68.9	83.6	88.3	87.1
17	Community composite (Barbak)	73.3	71.2	2.86	21.9	71.3	86.5	86.7	86.7
18	Community composite (untreated)	71.6	68.5	4.33	21.9	68.2	82.8	83.4	83.3

298

BULLETIN NO. 427

[December,

9
2
3
2
2
24
Ŷ
·'•
4
6-3
ΨĮ.
E
7
1
L.

Experimental division entries <i>not</i> in commercial production * Perfault Hybrid 93 * 100.6 98.1 2.49 21.7 75.2 91.3 110.5 * Illinois Hybrid 73 93.9 91.0 3.09 21.7 75.2 91.3 110.5 * Illinois Hybrid 73 93.5 93.9 91.0 3.09 21.7 91.4 110.9 110.7 * National Hybrid 73 93.5 93.5 3.03 22.5 83.3 110.6 110.7 * Netional Hybrid 97 92.3 80.5 3.04 21.4 86.5 100.6 110.7 * Nisconsin Hybrid 19 92.3 80.5 3.03 22.4 81.7 105.0 100.1 * Wisconsin Hybrid 19 92.9 88.1 3.08 22.4 81.7 105.2 106.0 * Wisconsin Hybrid 19 92.9 88.1 3.08 23.2.4 81.7 105.3 106.3 * Wisconsin Hybrid 118 88.3 86.5 20.4 22.2.3 89.4 1		112.5	110.8	110.6	108.2	107.9	107.8	107.0	106.2	105.5	104.3	103.7	101.8	101.6	101.3	100.9	100.8	98.3	97.8	97.4	97.0	94.3	94.3	94.1	84.9	83.6	101.3		
Experimental division—entries <i>not</i> in commercial production *DeKalb Hybrid 586 93.5 91.0 2.49 21.4 75.2 *Illinois Hybrid 586 93.5 90.4 3.30 21.4 75.2 *Illinois Hybrid 586 93.5 90.4 3.30 21.4 75.2 *Illinois Hybrid 586 93.5 90.4 3.37 23.5 92.3 *DeKalb Hybrid 510 92.1 88.3 30.3 22.4 86.7 *DeKalb Hybrid 570 92.1 89.0 93.5 3.03 22.4 86.7 *DeKalb Hybrid 570 92.1 89.0 93.5 3.03 22.4 86.7 *Wisconsin Hybrid 27 92.3 86.5 2.04 22.3 86.7 *Wisconsin Hybrid 28 88.5 3.03 22.4 81.7 *Wisconsin Hybrid 28 88.5 3.03 22.4 81.7 *Wisconsin Hybrid 28 88.5 88.6 3.03 22.4 81.7 *Wisconsin Hybrid 28 88.5 88.7 3.2		119.5	110.8	110.1	110.7	109.0	108.6	108.4	105.4	107.3	106.0	102.3	101.3	100.4	98.4	102.1	96.6	94.9	99.1	96.1	94.0	97.1	91.1	90.3	78.3	77.1	100.6	•	
Experimental division—entries <i>not</i> in commercial produ *DeKalb Hybrid 93 100.6 98.1 2.49 211.7 *Illinois Hybrid 586 93.3 91.0 3.09 211.7 *Illinois Hybrid 586 93.3 90.4 3.30 211.7 *National Hybrid 570 92.3 99.5 3.30 211.7 *National Hybrid 570 92.3 99.5 3.30 211.7 *National Hybrid 570 92.3 99.5 3.30 211.7 *Wisconsin Hybrid 570 92.3 89.5 3.33 22.4 *Wisconsin Hybrid 19 92.1 88.3 3.03 22.4 *Wisconsin Hybrid 2 90.9 88.1 3.03 22.4 *Wisconsin Hybrid 2 88.3 88.1 3.03 22.4 *Wisconsin Hybrid 2 88.1 3.03 22.4 20.6 *Wisconsin Hybrid 2 87.2 82.4 4.74 20.6 *Wisconsin Hybrid 3 80.5 82.4 4.74 20.6 *Wisconsin Hybrid 3 <		91.3	110.9	112.0	100.8	104.6	105.2	102.7	108.5	100.1	99.2	107.9	103.4	105.0	109.8	97.1	113.5	108.4	93.8	101.2	105.8	85.7	103.8	105.3	104.7	102.9	103.3	:	
 *DeKalb Hybrid 93 *DeKalb Hybrid 586 *Illinois Hybrid 571 *National Hybrid 571 *National Hybrid 571 *National Hybrid 570 *DeKalb Hybrid 104 *Wisconsin Hybrid 119 *Wisconsin Hybrid 119 *Wisconsin Hybrid 2086A *Wisconsin Hybrid 2 *Wisconsin Hybrid 3 *Wisconsin Hybrid 5 *Wisconsin Hybrid 5 *Wisconsin Hybrid 3 *Wisconsin Hybrid 410 *Wisconsin Hybrid 3 *Wisconsin Hybrid 410 	oduction	75.2	91.4	92.3	83.1	86.2	86.7	84.6	89.4	82.5	81.7	88.9	85.2	86.5	90.5	80.0	93.5	89.3	77.3	83.4	87.2	70.6	85.5	86.8	86.3	84.8	85.2	82.4	
 *DeKalb Hybrid 93 *DeKalb Hybrid 586 *Illinois Hybrid 571 *National Hybrid 571 *National Hybrid 571 *National Hybrid 570 *DeKalb Hybrid 104 *Wisconsin Hybrid 119 *Wisconsin Hybrid 119 *Wisconsin Hybrid 2086A *Wisconsin Hybrid 2 *Wisconsin Hybrid 3 *Wisconsin Hybrid 5 *Wisconsin Hybrid 5 *Wisconsin Hybrid 3 *Wisconsin Hybrid 410 *Wisconsin Hybrid 3 *Wisconsin Hybrid 410 	nmercial pr	21.4	21.7	23.5	22.5	22.4	23.5	21.7	22.3	22.4	22.4	20.7	21.1	20.6	22.0	22.6	21.1	23.3	21.7	21.9	20.7	23.0	21.5	23.2	21.6	23.3	22.1	22.0	
 *DeKalb Hybrid 93 *DeKalb Hybrid 586 *Illinois Hybrid 571 *National Hybrid 571 *National Hybrid 571 *National Hybrid 570 *DeKalb Hybrid 104 *Wisconsin Hybrid 119 *Wisconsin Hybrid 119 *Wisconsin Hybrid 2086A *Wisconsin Hybrid 2 *Wisconsin Hybrid 3 *Wisconsin Hybrid 5 *Wisconsin Hybrid 5 *Wisconsin Hybrid 3 *Wisconsin Hybrid 410 *Wisconsin Hybrid 3 *Wisconsin Hybrid 410 	es not in cor	2.49	3.09	3.32	3.30	3.03	3.25	3.37	2.04	3.08	3.23	3.56	3.14	4.74	5.50	3.90	1.25	5.56	3.78	5.96	2.03	6.78	6.50	12.00	6.68	2.16	4.18	3.98	
 *DeKalb Hybrid 93 *DeKalb Hybrid 586 *Illinois Hybrid 571 *National Hybrid 571 *National Hybrid 571 *National Hybrid 570 *DeKalb Hybrid 104 *Wisconsin Hybrid 119 *Wisconsin Hybrid 119 *Wisconsin Hybrid 2086A *Wisconsin Hybrid 2 *Wisconsin Hybrid 3 *Wisconsin Hybrid 5 *Wisconsin Hybrid 5 *Wisconsin Hybrid 3 *Wisconsin Hybrid 410 *Wisconsin Hybrid 3 *Wisconsin Hybrid 410 	sion—entrie	98.1	91.0	90.4	90.9	89.5	89.2	89.0	86.5	88.1	87.0	84.0	83.2	82.4	80.8	83.8	79.3	77.9	81.4	78.9	77.2	79.7	74.8	74.1	64.3	63.3	82.6	82.1	
 *DeKalb Hybrid 93 *DeKalb Hybrid 586 *Illinois Hybrid 571 *National Hybrid 97 *National Hybrid 97 Tillinois Hybrid 570 *DeKalb Hybrid 104 *Wisconsin Hybrid 119 *Wisconsin Hybrid 119 *Wisconsin Hybrid 2086A *Wisconsin Hybrid 2 *Wisconsin Hybrid 3 	mental divi	100.6	93.9	93.5	94.0	92.3	92.2	92.1	88.3	90.9	89.9	87.1	85.9	86.5	85.5	87.2	80.3	84.6	84.6	83.9	78.8	85.5	80.0	84.2	68.9	64.7	86.2		
222222098765552222222222222222222222222222222222	Experi	*DeKalb Hybrid 93	*Illinois Hybrid 586	*Illinois Hybrid 751	* *National Hybrid 9.	*DeKalb Hybrid 97	Illinois Hvbrid 570.	* *DeKalb Hybrid 104.	*Wisconsin Hybrid 4	<pre>*DeKalb Hybrid 119.</pre>	Wisconsin Hybrid 7	*Pioneer Hi-Bred 439	*	*	*	*	*					*	*Pioneer I	*	*	*	Average of division		

Illinois Corn Performance Tests 1935

299

*Average of 13 plots instead of 26.

1936]

perform-General rating ance $\begin{array}{c} 104.4\\ 104.4\\ 100.6\\ 99.3\\ 99.3\\ 99.2\\ 98.1\\ 98.1\\ 98.0\\ \end{array}$ 97.9 97.5 97.1 97.1 112.1 109.4 109.1 107.7 106.2 95.5 92. 8 5 Performance rating Sound $\begin{array}{c} perci.\\ perci.\\ 11111.0.9\\ 11110.0.4\\ 11110.0.4\\ 11100.0.5\\$ 틷 Lodging resistance *perci.* 105.0 116.1 99.2 99.2 96.8 96.8 106.1 114.5 103.3 104.6 102.6 91.8 100.3 103.2 88.2 88.2 94.4 99.7 93.0 104.0 95.1 (Average of triplicated entries—for data for individual fields see pages 327 to 329) 83. plants 888. 897. Erect Regular division-entries in commercial production in grain at Moisture harvest Damaged corn in shelled sample Perchara and a second and a sec Sound $\begin{array}{c} 100.4\\ 97.5\\ 92.8\\ 92.1\\ 92.2$ 89.8 85.6 83.2 83.2 83.2 bu. 107.9 104.1 106.0 103.7 103.4 99.1 Acre-yield Total bu. 109.8 106.5 108.5 106.0 100.0 102.7 9.66 94.9 98.0 95.7 92.8 96.2 92.5 7.00 98.1 94.8 100.1 93.3 91.1 96.5 94.7 91.5 94.6 90.6 87.6 90.9 ŝ 80. Illinois Hýbrid 366. Illinois Hýbrid 364. Illinois Hybrid 360A. Pfater Hybrid 4857. Illinois Hybrid 384. Pfister Hýbrid 584..... Morgan-Wallace Hybrid 111...... Funk Hybrid 214..... Morgan-Wallace Hybrid 105...... Funk Hybrid 215. Pioneer Hi-Bred 311A..... owa Hybrid 939.... Pioneer Hi-Bred 306..... ••••• owealth Hybrid C..... llinois Hybrid 360..... ⁷unk Hybrid 220.... unk Hybrid 206 Morgan-Wallace Hybrid 106 Iowa Hybrid 13.... Morgan-Wallace Hybrid 104 Morgan-Wallace Hybrid 138 Hulting Yellow Dent..... Funk Hybrid 208 McKeighan Yellow Dent... owa Hybrid 942..... Entry Pioneer Hi-Bred 311 owealth Hybrid B Rank 222222209887654321110 987765432

300

[December,

	89.2 88.2 87.2	87.0 84.2	84.1 83.0	97.5		112.1	110.1	110.1 108 6	108.5	108.4	108.1	108.0	104.7	104.3	104.3	103.7	103.0	102.2	101.6	101.1	100.4	98.6	0.06	90.8 8.06	103.8	:	
	92.5 94.1 93.4	90.7 86.3	86.9 86.9	97.7		114.4	113.8	107 0	107.6	108.5	109.2	108.3	104.1	102.4	103.5	104.3	101 0	100.1	101.1	100.8	97.9	95.7	00.0	90.0 85.4	103.4		
	79.1 70.6 68.6	75.8	75.8 71.3	96.6		105.0	98.8	103.8 110.8	111.3	107.9	104.7	104.4 107 0	106.6	111.1	106.8	101.7	107.0	108.5	103.2	101.9	108.0	107.4	94.3	91.0 107.1	105.0	:	
	67.3 60.1 58.4	64.5 66.1	64.5 60.7	82.2	duction	89.3	84.1	88.3	94.7	91.8	89.1	01 0	90.7	94.5	90.9	86.5	51.5 00	92.3	87.8	86.7	91.9	91.4	80.2	91.1	89.4	85.1	
	21.2 22.1 20.9	20.8 20.1	21.8 21.4	20.5	mercial pro	21.5	22.0	20.1	20.8	21.0	21.7	20.4 20.4	21.0	21.9	21.3	21.1	19.2	21.8	21.2	21.6	20.4	20.4	27.0	21.2	21.0	20.7	
TABLE 5.—Concluded	3.12 3.52 3.52	$3.29 \\ 2.05$	$3.32 \\ 3.43$	3.77	not in com	5.45	2.46	2.23	1.46	2.21	3.12	0.07 1 55	2.10	4.66	1.42	1.90	2.14	4.76	2.26	7.07	3.66	1.53	68.7	8.86	3.09	3.49	
TABLE 5	86.9 88.4 87.7	85.2 81.1	81.6 81.6	91.8	Experimental division—entries not in commercial production	107.5	106.9	105.4 101 4	101.1	101.9	102.6	101 7	97.8	96.2	97.2	98.0	0.07 0.7	94.0	95.0	94.7	92.0	89.9		80.2 80.2	97.1	93.9	
	89.7 90.7 90.9	88.1 82.8	84.4 84.5	95.4	iental divis	113.7	109.6	107.8	102.6	104.2	105.9	103.3	6.06	100.9	98.6	6.66 1	98.I	98.7	97.2	101.9	95.5	91.3	93.4 06.0	88.0 88.0	100.2	97.3	
	•	Community composite (Semesan Jr.) Queen of the Field			Experim	*Illinois Hybrid 960	*Moews Hybrid 32.	*Iowa Hybrid 3110 *Illinois Hybrid 036	*Illinois Hybrid 751.	*U. S. Hybrid 38.	*Moews Hybrid 22.	Illinois Hybrid 3/1	Illinois Hybrid 754.	*U. S. Hybrid 44	*Illinois Hybrid 571	*Moews Hybrid 30.	TINDIANA HYDRIG 042	*Pioneer Hi-Bred 3010	*Moews Hybrid 24	*Illinois Hybrid 574	*Indiana Hybrid 620	*DeKalb Hybrid 97	: 2	* Pioneer Hi-Bred 2218A	Average of division	Average of all entries	
	27	30 30	31 32			-	20	24	°.4,	ŝ	91	- 1-	• ∞	6	6	2:	11	13	14	15	10	17	20	22			

1936]

.

301

*Average of 15 plots instead of 30.

R, Bellflower, and Armstrong, 1935	s 330 to 334)
TABLE 6.—CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS AT AI	(Average of triplicated entries-for data for individual fields see p

302

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Acre-	Acre-yield	Damaged corn in	Moisture	Erect	Performar	Performance rating for—	General Derform-	502
Nall		Total	Sound	shelled sample	in grain at harvest	plants	Lodging resistance	Sound yield	ance rating	
	Re	egular divis	ion-entrie	s in comme	Regular division-entries in commercial production	ion				
		bu.	bu.	perct.	perct.	perct.	perct.	perct.		
1	Illinois Hybrid 360	93.1	91.9	1.29	20.6	72.8	108.0	110.3	109.7	
7	Illinois Hybrid 360A	94.4	93.0	1.48	20.7	66.8	99.1	111.6	108.5	
ŝ	Illinois Hybrid 384	85.1	84.4	.82	20.2	87.5	129.8	101.3	108.4	
4	Pfister Hybrid 4857	89.6	88.7	1.00	20.3	64.7	96.0	106.4	103.8	
S	Illinois Hybrid 172.	. 85.4	84.1	1.52	19.6	72.8	108.0	100.9	102.7	
9	Pfister Hybrid 584	89.2	87.7	1.68	20.3	61.3	90.9	105.2	101.6	
7	Pioneer Hi-Bred 311	82.8	81.0	2.17	18.5	75.8	112.5	97.2	101.0	
8	Illinois Hybrid 543	85.0	84.0	1.18	22.4	66.5	98.7	100.8	100.3	
6	Funk Hybrid 220L.	82.0	80.6	1.71	21.2	73.1	108.5	96.7	99.7	2
10	Pioneer Hi-Bred 307A	84.1	82.3	2.14	20.6	65.1	96.6	98.8	98.3	UL.
11	Funk Hybrid 220	80.7	79.6	1.36	21.8	68.8	102.1	95.5	97.2	, L., L.
12	Pioneer Hi-Bred 306	86.3	83.8	2.90	19.9	57.5	85.3	.100.6	96.8	
13	Iowa Hybrid 13	87.2	83.1	4.70	21.0	56.6	84.0	99.8	95.9	
14	Pioneer Hi-Bred 311A	81.5	78.3	3.93	19.0	67.6	100.3	94.0	95.6	± • •
15	Funk Hybrid 206	76.6	75.3	1.70	22.7	67.8	100.6	90.4	93.0	0.
16	Funk Hybrid 208.	75.9	74.5	1.84	21.8	60.5	89.8	89.4	89.5	-12
17	McKeighan Yellow Dent	76.1	74.2	2.50	24.2	57.0	84.6	89.0	88.0	•
18	Original Krug	79.4	78.1	1.64	21.8	42.7	63.4	93.7	86.1	
19	Station Yellow Dent	76.0	74.3	2.24	23.0	46.8	69.4	89.2	84.3	
	 Average of 5 best open-pollinated var. 	. 75.4	73.4	2.65	23.6	45.1	60.9	88.1	82.8	
20	Mountjoy Yellow Dent	75.5	74.1	1.85	23.5	41.8	62.0	88.9	82.2	
21	Stiegelmeier Yellow Dent	60.9	66.5	4.86	25.4	37.2	55.2	79.8	73.7	
	Average of division	82.1	81.0	2.00	21.5	62.4	92.0	97.1	0.06	
ĺ	Experi	Experimental divis	ision-entries		not in commercial production	duction				
1	*U. S. Hybrid 44.	96.0	94.9	1.15	21.6	76.0	112.8	113.9	113.6	
2	*Illinois Hybrid 729	92.3	91.1	1.30	20.2	83.6	124.0	109.3	113.0	l
ŝ	*Illinois Hybrid 960	98.2	95.7	2.55	21.7	71.1	105.5	114.8	112.5	
4	*Illinois Hybrid 793	92.6	90.4	2.38	22.7	75.8	112.5	108.5	109.5	ιι
ŝ	*U. S. Hybrid 57	91.2	89.3	2.08	21.9	73.9	109.6	107.2	107.8	
9	*Illinois Hybrid 934	86.7	85.0	1.96	22.1	84.1	124.8	102.0	107.7	
-	*Illinois Hybrid 775.	84.1	83.1	1.19	20.9	88.2	130.9	99.7	107.5	. , ,
ж (*Pioneer Hi-Bred 2088.	88.8	87.3	1.69	19.6	77.3	114.7	104.8	107.3	0
6	*U. S. Hybrid 38.	87.2	85.9	1.49	21.9	80.5	119.4	103.1	107.2	
10	Illinois Hybrid 546	88.1	86.1	2.27	22.8	79.4	117 0			

Bu

BULLETIN No. 427

[December,

Illinois Hybrid 371								
	81.9	80.8 20.8	1.25	20.8	0.11	114.2	104.2	106.7
lowa Hybrid 3110	93.1	92.3	.80	21.0	03.4	94.1	110.8	100.0
Pioneer Hi-Bred 2111	89.5	80.8	3.02	20.9	75.1	111.4	104.2	106.0
*Illinois Hybrid 372	82.4	81.6	.97	19.9	84.9	126.0	97.9	104.5
S. Hvhrid 33.	87.0	85.2	2.07	21.9	75.6	112.2	102.2	104.7
Illinois Hvbrid 46	83.5	81.4	2.51	19.6	83.8	124.3	97.7	104.4
Indiana Hybrid 634	87.0	85.4	1.84	21.6	73.3	108.8	102.5	104.1
Illinois Hybrid 710	01 1	88.7	2 63	24 7	65.3	0.90	106.4	104 0
lions II thuid 620	03.0	01.1	7.96	0.00	2 69	1001	1 10	102 0
	0.00	1.10	20.7	2.17	C. 70	1.001	1.16	
Pioneer Hi-Bred 2011	80.8	84.4	7.10	21.4	14.0	110.1	5. IUI	103.1
*Indiana Hybrid 631	86.1	83.9	2.56	22.0	75.8	112.5	100.7	103
inois Hybrid 936	85.2	83.9	1.53	21.6	75.0	111.3	100.7	103.4
*Illinois Hvbrid 737	82.8	81.5	1.57	21.9	79.6	118.1	97.8	102.5
Illinois Hybrid 754	83.8	82.8	1.19	21.7	76.2	113.1	99.4	102.8
Funk Hubrid 207	0 00	87.6	2.67	21.8	62.8	93.2	105 2	102
Indiana Hubrid 642	88.6	86.8	2.03	21.2	62 6	0 00	104 2	101
	0.00	0.00	20.00	1.12	61.0	01.0	102.2	
	0.00	00.00	17.7	4.07	11.7	0.16	100.5	
inois Hybrid /00.	80.Y	04.0	2.02	7.77	1.00	0.02	C.101	
Phster Hybrid 3258	91.4	6.98	2.08	77.4	53.0	18.0	101.4	1001
*Illinois Hybrid 753	88.7	87.2	1.69	25.1	58.1	86.2	104.6	100.0
"Illinois Hybrid 574	88.2	85.4	3.17	22.7	61.7	91.5	102.5	3.66
Iowa Hybrid 3045	.89.2	86.3	3.25	23.3	59.1	87.7	103.6	9.66
Pioneer Hi-Bred 2215A	83.5	79.2	5.15	21.0	76.0	112.8	95.0	66
'Illinois Hybrid 508	81.1	79.1	2.47	23.0	72.6	107.7	94.9	98.1
"Illinois Hybrid 765	81.3	80.3	1.23	21.9	69.6	103.3	96.4	98.
Illinois Hybrid 39	79.3	78.2	1.39	23.0	74.4	110.4	93.8	98.(
'Indiana Hybrid 819	84.0	81.4	3.10	23.5	65.1	96.6	97.7	97.4
diana Hybrid 666	84.0	80.4	4.29	22.6	66.0	97.9	96.5	96.9
'Ohio Hybrid 8.	86.2	84.6	1.86	21.4	55.2	81.9	101.5	96.(
*Illinois Hybrid 764	85.1	82.8	2.70	22.7	58.8	87.2	99.4	96.
"Illinois Hybrid 54.	80.2	77.8	2.99	22.9	69.6	103.3	93.4	95.6
*Ohio Hvbrid 6.	79.3	77.3	2.52	19.9	69.7	103.4	92.8	95.2
Illinois Hvbrid 391.	85.7	82.4	3.85	24.3	53.4	79.2	98.9	94.(
Illinois Hybrid 579	88.3	84.5	4.30	25.0	47.5	70.5	101.4	93.
Indiana Hvbrid 820.	80.8	78.8	2.48	24.2	59.5	88.3	94.6	93.0
÷ -	84.4	82.7	2.01	22.2	48.5	72.0	99.2	92.4
Ohio Hybrid 7	82.2	78.5	4.50	22.9	58.2	86.4	94.2	92
Illinois Hybrid 530	76.8	74.7	2.73	23.2	59.5	88.3	89.6	80
Average of division.	86.4	84.4	2.31	22.0	69.69	103.8	101.3	101.8
Average of all entries	85 3	83 3	1 21	21.8	67 A			

1936]

Illinois Corn Performance Tests 1935

303

1935	
HESTER AND SULLIVAN,	(9)
Wing	to 33
HYBRIDS AT	see pages 335
VARIETIES AND	ndividual fields
CE OF CORN	data for in
PERFORMANCE (ted entries-for
T ILLINOIS:	age of duplica
E 7SOUTH-CENTRAL	(Aven
TABLI	

	(Average of duplicated entries-for data for individual neids see pages 333 to 300)	ted entries	-Ior data		ual neids see	pages 222	(000 01		
duc d	П П 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Acre-yield	ield	Damaged corn in	Moisture	Erect	Performance rating for—	ce rating	General perform-
		Total	Sound	shelled sample		plants	Lodging resistance	Sound . yield .	ance rating
	Reg	ular divisio	n-entries	in commer	Regular division—entries in commercial production	ч			
		.pa.	bu.	perct.	perct.	perct.	perct.	. perct.	
-	Funk Hybrid 220L.	68.9	68.4	.68	20.9	64.0	128.5	113.3	117.1
7	Station Yellow Dent.	61.3	61.0	.49	21.5	44.0	88.4	101.0	97.9
ŝ	Wilson Yellow Dent	61.3	60.09	2.12	22.2	42.3	84.9	99.3	95.7
J	• Average of 5 best open-pollinated var.	60.6	59.4	1.98	22.5	41.2	82.7	98.0	94.5
4	Canterbury Yellow Dent	61.8	60.2	2.59	23.2	37.6	75.5	7.66	93.7
ŝ	Rice Yellow Dent.	58.6	57.1	2.56	23.3	43.3	86.9	94.5	92.6
ŝ	Waddell Utility Yellow Dent	59.8	58.9	1.51	22.5	38.7	77.7	97.5	92.6
9	Waddell Golden Dent	56.1	54.9	2.14	23.8	45.0	90.4	9.06	90.8
1	Shuman Golden Beauty	56.2	54.9	2.31	21.4	44.6	89.6	90.9	90.6
×	Moore Yellow Dent.	55.5	53.2	4.14	22.8	48.6	97.6	88.1	90.5
6	Eversole White Dent	57.8	56.2	2.77	22.8	33.7	67.7	93.0	86.7
10	Waddell Utility White Dent	49.7	45.6	8.25	24.6	31.9	64.1	75.5	72.4
	Average of division	58.8	57.3	2.55	22.6	43.1	86.5	94.9	92.8

3
2
9
2
~
2
3
3
Ý
· .
-
H
1
m
2

*193*6]

	135.7	120.8	120.5	120.3	120.2	118.6	116.4	115 7	112 4	4.011	112.7	111.9	111.8	109.9	109.1	108.8	106.5	105.1	104.9	100.2	98.5	95.8	95.5	91.0	88.2	85.2	84.7	84.5	83.9	74.4	72.4	60.09	102.5	:	
	132.0	119.4	118.0	108.8	112.4	112.1	117.1	113 6	110.0	0.011	111.9	112.9	110.3	108.9	100.3	110.6	108.8	99.8	107.3	94.7	104.8	94.9	101.0	94.4	90.1	87.6	89.6	85.4	87.3	77.2	77.5	53.5	101.7	:	
	146.8	125.1	128.1	154.6	143.4	138.2	114 1	100 1	1.141	1.121	114.9	108.8	116.1	112.7	135.5	103.4	99.4	121.1	97.8	116.5	79.5	98.4	78.9	80.7	82.3	77.9	69.9	81.9	73.7	65.9	57.0	79.3	104.7	:	
oduction	73.1	62.3	63.8	77.0	71.4	68.8	56.8	8.09		00.3	57.2	54.2	57.8	56.1	67.5	51.5	49.5	60.3	48.7	58.0	39.6	49.0	39.3	40.2	41.0	38.8	34.8	40.8	36.7	32.8	28.4	39.5	52.1	49.8	
nmercial pro	19.9	22.6	22.2	23.3	21.0	21.0	20 4	1010	0.17	1.12	21.1	21.5	20.8	21.4	22.5	21.4	20.6	21.9	22.9	23.8	25.2	25.2	25.4	24.4	24.5	25.4	22.9	22.4	24.0	28.0	26.8	29.3	23.1	22.9	
s not in con	.50	2.30	1.52	2.67	2.02	1.60	1 26	2 6 7 0	10.0	1.02	1.02	1.73	1.48	1.94	3.50	1.47	.76	1.79	4.00	2.61	4.09	4.34	3.17	6.40	4.90	10.79	3.39	2.09	5.22	12.90	8.77	4.78	4.06	3.51	
Experimental division—entries not in commercial production	79.7	72.1	71.3	65.7	67.9	67 7	101	1.01	0.00	00.9	67.6	68.2	66.6	65.8	60.6	66.8	65.7	60.3	64.8	57.2	63.3	57.3	61.0	57.0	54.4	52.9	54.1	51.6	52.7	46.6	46.8	32.3	61.4	60.4	
nental divi	80.1	73.8	72.4	67.5	69.3	8 89	71.6		1.1.1	68.0	68.3	69.4	67.6	67.1	62.8	67.8	66.2	61.4	67.5	69.0	66.0	59.9	63.0	60.9	57.2	59.3	56.0	52.7	55.6	53.55	51.3	37.9	64.0	62.6	
Experim	1 Illinois Hybrid 960	2 Illinois Hvbrid 947	Illinois Hybrid 710.	1 Illinois Hybrid 966	C Illinois Hybrid 30	c Illinois Hybrid 546			S Funk Hybrid 20/	9 Illinois Hybrid 559	0 *Iowealth Hvbrid CC	1 Illinois Hvbrid 538.	Plink Hvhrid 225.	3 Illinois Hybrid 54	1 Illinois Hybrid 508					•			7 Kansas Hvhrid 5			.,		*		*	*Missouri Hybrid 8	*		Average of all entries	•
									Ĵ	φ,	ĩ	-			-	• -		•	•	-	~~~	i Ċ	1Ċ	10	10	1Č	10	10	10	ίč	1 7	3 6	•	l	ļ

305

*Average of 5 plots instead of 10 at Winchester, and 4 instead of 8 at Sullivan.

AND EDGEWOOD, 1935	
TABLE 8.—SOUTHERN ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYDRIDS AT ALHAMBRA	(Average of duplicated entries—for data for individual fields see pages 337 to 338)

.

	Comaged Mois-			Damaged	Mois-		Performance rating for-	Performance	General	000
Jurd	Futry	Acre-yield	yield	corn in		Erect			perform-	
dilk		Total	Sound	shelled sample	grain at harvest	plants	Lodging resist- ance	Sound yield	ance rating	
	Regular division—entries in commercial production	tries in c	ommerci	ıl product	tion					
		bu.	bu.	perct.	perct.	perct.	perct.	perct.		
1	Moore Yellow Dent.	54.4	52.2	4.04	23.5	47.8	101.7	106.6	105.4	
2	Community composite (Semesan Jr.)	51.5	50.5	1.94	24.5	46.3	98.6	103.1	102.0	
ς Γ	Waddell Golden Beauty.	49.5	49.4	. 81	25.0	43.8	93.2	100.9	0.06	
•	Pride of Saline	49.0 50.3	40.0 48.4	3.78	0.07	35.8	20.1	0.00	03.7	
ŝ	Community composite (Barbak).	45.2	43.8	3.10	22.5	45.5	96.8	89.4	91.3	
9	Waddell Utility White Dent	45.4	44.0	3.08	24.9	43.0	91.5	89.9	90.3	
9	BlackhawkBlackhawk	47.6	45.8	3.78	26.5	38.0	80.9	93.5	90.3	
1	Champion White Pearl	48.1	41.6	13.51	25.8	46.5	0.00	84.9	88.4	
×	Community composite (untreated)	45.8	41.0	10.48	24.9	40.8	80.8	83.7	84.5	
	Average of division	48.6	46.3	4.73	25.1	43.1	91.6	94.5	93.8	
	Experimental division—entries not in commercial production	itries not	in comn	iercial pro	oduction					
	Illinois Hybrid 508	53.8	52.7	2.04	21.7	64.8	137.9	107.6	115.2	
2	*Champion White Pearl X Indiana 33	58.0	53.3	8.10	23.5	57.0	121.3	108.8	111.9	
ŝ	*Indiana Hybrid 835	54.0	52.4	2.96	20.0	58.0	123.5	107.0	111.1	
4	*Champion White Pearl X B 103	61.4	58.4	4.89	24.3	39.0	83.0	119.3	110.2	
ŝ	*Indiana Hybrid 815	53.7	53.1	1.12	28.0	54.0	114.9	108.4	110.0	
••	*Missouri Hybrid 19.	58.3	57.1	2.06	27.1	40.5	86.2	116.6	109.0	
- 0		53.0	52.5	46.	19.3	45.0	95.8	107.2	104.4	
00	*Chamaian Mybita 223 Decido of Colino 47	41.9	41.2	1.40	23.0	00.00	110 2	90.4 02.5	104.2	
۰5	Champion White I can \wedge I line of value 4/	46.7	45.0	29.7	2.07	20.02	116.6	03.7	00 4	-
2	*Champion White Pearl × Pride of Saline 29.	55.0	49.5	10.00	26.1	34.0	72.4	101.1	93.9	
7	*Golden Beauty \times 5677	46.2	43.7	5.41	23.7	36.0	76.6	89.2	86.1	
	Average of division	52.9	51.0	3.59	23.4	49.9	106.3	104.1	104.6	

306

BULLETIN No. 427

[December,

:

:

47.0

24.1

4.11

49.0

51.1

Average of all entries.....

*Average of 10 plots instead of 20.

Illinois Corn Performance Tests 1935

						Performance rating	ce rating	-
	Acre-yield	yield	Damaged corn in	Moisture	Erect	for—		General perform-
Enuy	Total	Sound	shelled sample	harvest	plants	Lodging resistance	Sound yield	ance rating
Reg	ular divisio	on-entrie	s in commer	Regular division—entries in commercial production	uo			
	bu.	bu.	perct.	perct.	berct.	perct.	perct.	
Wilson Yellow Dent	58.0	57.4	1.03	17.8	77.0	91.7	104.0	100.9
Pride of Saline	59.0	58.1	1.53	18.5	70.0	83.5	105.3	99.9
5 best open-pollinated var.	55.4	54.6	1.44	17.8	75.4	89.9	98.9	96.5
Waddell Golden Beauty	53.5	52.7	1.50	17.2	80.0	95.4	95.5	95.5
Waddell Utility White Dent	55.2	53.5	3.08	17.6	71.0	84.7	96.9	93.4
Station Yellow Dent	51.1	51.1	0	17.8	79.0	94.2	92.6	93.0
Eversole White Dent.	52.8	52.3	.95	17.4	73.0	85.9	94.8	92.5
St. Charles White	51.8	47.1	9.07	19.5	79.5	94.7	85.3	87.7
Kiefer Leaming	51.8	45.5	12.16	21.2	81.0	96.6	82.4	85.9
*Long Iohn	51.8	48.2	6.95	16.7	62.0	73.9	87.3	83.7
Moore Yellow Dent.	46.2	43.5	5.84	19.0	78.5	93.7	78.8	82.5
Arrange of diricion	52 1	0 02	A 1A	18 3	75 1	80 4	07 2	01.5

~4~~~~~

Rank

(Table is concluded on next page)

307

Kank Entry		Acre.	Acre-yield	Damaged	Moisture	Ľ	Performance rating for—	ce rating 	General
	1	Total	Sound	- corn in shelled sample	in grain at harvest	plants	Lodging resistance	Sound yield	- periorm- ance rating
	Experim	ental divi	sion-entri	es not in con	Experimental division—entries not in commercial production	duction			
1 *Pride of Saline × Indiana 33.	33	69.0	68.5	.72	17.4	92.0	109.8	124.1	120.5
2 Illinois Hvhrid 940		65.9	64.6	1.97	18.4	92.5	110.4	117.1	115.4
3 *Missouri Hvbrid 51		66.2	65.7	.76	19.6	85.0	100.1	119.0	114.3
4 Illinois Hybrid 508		63.5	63.3	.31	17.1	91.0	108.6	114.7	113.2
4 Indiana Hvhrid 835.		64.9	64.4	77.	17.4	86.0	102.6	116.7	113.2
5 Illinois Hybrid 947		65.2	63.4	2.76	17.6	83.5	100.0	114.9	111.2
6 Indiana Hvhrid 880.		63.1	60.9	3.49	17.1	90.5	107.1	. 110.4	109.6
7 *I one Iohn × 4211		60.0	59.4	1.00	17.1	92.0	109.8	107.6	108.2
8 *Missouri Hybrid 19.		62.9	59.1	6.04	20.7	89.0	106.2	107.1	106.9
9 *Missouri Hybrid 11.		61.8	57.3	7.28	18.5	88.0	105.0	103.8	104.1
10 *Missouri Hybrid 8.		59.7	57.5	3.69	18.6	85.0	101.4	104.2	103.5
11 Indiana Hvbrid 823.		55.2	54.2	1.81	16.7	96.5	115.2	98.2	102.5
12 Illinois Hvbrid 54.	•	62.8	55.3	11.94	17.3	91.0	108.6	100.2	102.3
13 *Wood Hvbrid Early White I	e Dent	58.7	57.3	2.39	19.4	79.0	94.1	103.8	101.4
		58.3	56.8	2.57	17.2	78.5	93.7	102.9	100.6
15 Illinois Hvbrid 51.	•	56.9	53.6	5.80	18.2	88.0	105.0	97.1	0.06
15 *Moore Yellow Dent × Indiana B2.	diana B2	53.8	51.4	4.46	18.4	98.0	116.9	93.1	0.06
*	llow Dent.	52.1	51.2	1.73	17.6	85.0	101.4	92.8	94.9
17 Indiana Hvbrid 815		47.3	46.7	1.27	17.3	90.06	107.4	84.6	90.3
18 *Golden Beauty × 5677		48.6	47.4	2.47	17.6	80.0	95.5	85.9	88.3
19 *Wood Hybrid Medium White Dent	nite Dent.	47.6	43.5	8.61	21.2	85.0	101.4	78.8	84.4
Average of division		59.2	57.2	3.38	18.1	87.9	104.8	103.7	103.9
Average of all entries		57.2	55.2	3.50	18.2	83.8	:	:	

TABLE 9.—Concluded

308

[December,

.

*Average of 5 plots instead of 10.

TABLE 10.-HYBRIDS AND OPEN-POLLINATED VARIETIES COMPARED: GENERAL PERFORMANCE RATING AND SOUND Vield of Five Best Hybrids and Five Best Open-Pollinated Varieties on the

	Soun	Sound yield per acre	acre	Genera	General performance rating	rating	936]
Field	Open- pollinated varieties	Hybrids	Difference in favor of hybrids	Open- pollinated varieties	Hybrids	Difference in favor of hybrids	
Northeastern Dundee	bu. 40.9	bu. 53.6	bu. 12.7	91.3	120.4	29.1	Ill
Stockton Rochelle Plainfield	80.8 68.8 81.9 77.2	93.4 92.2 94.8	12.6 23.4 16.8 17.6	94.8 88.4 93.3	115.7 113.9 113.0 114.2	20.9 25.5 16.4 20.9	inois Corn
North-Central Cambridge	91.0 76.7 95.1 87.6	$114.8 \\ 94.3 \\ 114.5 \\ 107.9$	23.8 17.6 19.4 20.3	86.7 91.5 90.3 89.5	114.6 1111.7 1111.8 1112.7	27.9 20.2 23.2 23.2	Performan
Central Adair	75.0 73.4 85.6 78.0	90.2 92.8 105.6 96.2	15.2 19.4 18.2	87.8 82.8 84.0 84.9	112.4 111.7 116.9 113.7	24.6 28.9 32.9 28.8	CE TESTS 1
South-Central Winchester	68.6 51.1 59.9	82.3 61.4 71.9	13.7 10.3 12.0	94.8 97.8 96.3	119.4 136.9 128.2	24.6 39.1 31.9	935
Southern Alhambra	54.8 45.9 50.4	60.4 54.1 57.3	5.6 8.2 6.9	$107.2 \\ 94.4 \\ 100.8$	121.9 117.4 119.7	14.7 23.0 18.9	
Southeastern Albion	48.0	54.0	6.0	95.7	111.7	16.0	309
Average of 15 fields	69.2	84.2	15.0	92.3	116.6	24.3	

"Only 4 open-pollinated varieties were tested at Dundee.

Tabi	TABLE 11.—SOIL-ADAPTATION TEST: SI	BLEY, CEN	fral Illing a Relative	IS, PERFORM LY POOR CO	ance of Co rn Soil	SIBLEY, CENTRAL ILLINOIS, PERFORMANCE OF CORN VARIETIES AND HYBRIDS ON ELLIOTT SILT LOAM, A RELATIVELY POOR CORN SOIL	and Hybri	ds on Elliott
			Acre-yield	yield	L root	Performance rating for-	rating for-	Control
Rank	Entry		Total	Sound	plants	Lodging resistance	Sound yield	performance rating
		Farm 45	-soil of hig	Farm 45—soil of higher productivity	rity			
			bu.	bu.	perct.	perct.	perct.	0 110 0
	Illinois Hybrid 300	• • • • • • •	09.0	89.4	6	100.3	112 5	110.0
77	Illinois hybrid 200		22.J	90.4 87 4	20	100.7	100.8	108.0
°.4	Illinois Hybrid 369	• •	85.3	84.2	95	106.3	105.8	105.9
ŝ	Illinois Hybrid 762.		87.1	86.4	86	96.2	108.5	105.4
9	Illinois Hybrid 172.		83.1	81.5	94	105.1	102.4	103.1
2	Illinois Hybrid 391		84.6	83.7	84	94.0	105.1	102.3
8	Illinois Hybrid 384		81.4	79.6	96	107.4	100.0	101.9
6	Illinois Hybrid 737		82.0	79.4	96	107.4	99.7	101.6
10	Illinois Hybrid 546		79.9	77.2	98	109.6	97.0	100.1
11			81.9	80.7	85	95.1	101.3	99.8
12	Illinois Hybrid 925.		79.1	77.8	94	105.1	97.7	99.6
13	Illinois Hybrid 710		81.4	79.1	87	97.3	99.3	98.8
14	Illinois Hybrid 392.		78.2	76.3	92	102.9	95.8	97.6
15	Illinois Hybrid 29.	•••••	77.3	75.9	90	100.7	95.3	96.7
16	Illinois Hybrid 538		77.8	76.6	81	90.6	96.2	94.8
17	Illinois Hybrid 543		75.9	74.4	87	97.3	93.4	94.4
18	Original Krug.		76.2	74.3	79	88.4	93.3	92.1
19	Station Yellow Dent.		73.1	70.1	85	95.1	88.0	89.8
20	Sibley composite		70.5	67.8	80	89.5	85.1	86.2
	Average of all entries		81.3	79.6	89.4	:	:	•
	Average of open-pollinated varieties.		:	72.2ª	:	•		••••

310

[December,

"Station Yellow Dent and Original Krug.

led	
nclue	
Ü L	
11	
3LE	
TAI	

	Farm 92	-soil of lov	Farm 92—soil of lower productivity	ty				
-	Illinois Hvbrid 538.	58.4	56.4	52	106.6	122.6	118.6	
. ~	Illinois Hvbrid 543	53.5	52.3	62	106.6	113.7	111.9	
1 (**	Illinois Hvbrid 172	50.9	49.9	78	105.2	108.5	107.7	
• 4		51.0	48.6	82	110.7	105.7	107.0	
ľ	Illinois Hybrid 20	51.4	49.9	75	101.2	108.5	106.7	
~ ~	Illinois Hybrid 360	51.6	48.7	78	105.3	105.9	105.8	
5	Sihley composite	51.3	50.2	68	91.8	109.1	104.8	
. œ	Illinois Hybrid 369	48.0	47.2	81	109.3	102.6	104.3	
••	Illinois Hybrid 392	51.0	47.9	71	95.8	104.1	102.0	
1	Illinois Hybrid 546	49.1	46.9	73	98.5	102.0	101.1	
:=	Illinois Hybrid 588	48.6	47.1	71	95.8	102.4	100.8	
1	Station Vellow Dent	48.0	46.8	68	91.8	101.7	99.2	
1	Illinois Hybrid 384	46.9	45.5	71	95.8	98.9	98.1	
14	Original Krug	46.3	44.6	71	95.8	97.0	96.7	
5	Ivhrid	46.7	41.5	78	105.3	90.2	94.0	
19	Illinois Hybrid 710	44.2	42.9	71	95.8	93.2	93.9	
17	Hvhrid	42.5	39.8	71	95.8	86.5	88.8	
2	Illinois Hvhrid 762	41.3	38.0	78	105.3	82.6	88.3	
0	Illinois Hybrid 737	41.3	39.2	11	95.8	85.2	87.9	
20	Illinois Hybrid 573.	41.2	36.5	68	91.8	79.3	82.4	
	Average of all entries	48.2	46.0	74.1	•		• • •	
	Average of open-pollinated varieties		45.7"	:		•		

TABI	Table 12.—SOIL-ADAPTATION TEST: Urbana, Central Illinois, Performance of Corn Varieties and Hybrids on Muscatine Silt Loam, a Relatively Good Corn Soil	Central II. Oam, a Rei	LINOIS, PER ATIVELY GOO	FORMANCE DD CORN So	of Corn Va dil	RIETIES AND	HYBRIDS ON
		Acre-yield	yield	Fract	Performance rating for-	rating for—	General
Rank	Entry –	Total	Sound	plants	Lodging resistance	Sound yield	performance rating
		Southwest rotation	otation				
		bu.	bu.	perct.	perct.	perct.	
-	Illinois Hvbrid 360.	106.3	105.8	82	119.9	113.3	115.0
2	Illinois Hvbrid 546.	104.0	102.8	82	119.9	110.1	112.5
3	Illinois Hvbrid 369.	99.5	99.7	62	115.5	106.7	108.9
4	Illinois Hybrid 588.	103.4	102.6	71	103.8	109.8	108.4
S	Illinois Hybrid 384.	94.6	93.9	87	127.2	100.5	107.2
9	Illinois Hybrid 762.	98.0	97.0	76	111.1	103.9	105.7
2	Illinois Hybrid 573	100.2	0.06	20	102.3	106.0	105.1
~	Illinois Hybrid 172.	92.9	92.0	82	119.9	98.5	103.9
6		97.8	96.5	20	102.3	103.3	103.3
10	Illinois Hybrid 391	94.1	92.9	11	112.6	99.5	102.8
11	Illinois Hybrid 29.	93.0	91.6	73	106.7	98.1	100.2
12	_	101.6	100.2	52	76.0	107.2	99.4
13	_	96.4	95.6	09	87.7	102.3	98.7
14	Illinois Hybrid 543.	92.2	91.5	62	90.6	98.0	96.1
15	Illinois Hybrid 392.	85.9	84.8	75	109.6	90.8	95.5
16	Illinois Hybrid 710.	85.8	83.8	67	98.0	89.7	91.8
17	Station Yellow Dent	78.9	77.8	37	54.1	83.3	76.0
18	Original Krug	76.3	74.1	30	43.9	79.3	70.4
	Average of all entries	94.5	93.4	68.4		:	:
	Average of open-pollinated varieties	:	76.0*	:	•	:	:

[December,

1936]

TABLE 12.—Concluded

2	1	2
υ	Ŧ	J

*Station Yellow Dent and Original Krug.

linois Hybrid 360	87.5 87.0 87.0	86.9 86.4 86.7	96 80 80 80	128.9 128.9 117.5	108.5 107.9 108.2	113.6 113.1 110.5
Hybrid Hybrid Hybrid	84.0 84.8	83.3 83.8	36 8	128.9	104.0 104.6	110.2
Hybrid Hybrid	87.3 80.7	87.0 80.1	70 85	100.3 121.8	108.6	106.5 105.4
llinois Hybrid 546 llinois Hybrid 588 llinois Hybrid 543	83.3 89.1 83.3	82.2 88.7 81.4	80 25	86.0 86.0 107.4	102.0 110.7 101.6	104.9 104.5 103.0
Hybrid	79.6 74.8 82.1	78.8 73.6 81.3	78 85 65	111.7 121.8 93.1	$98.4 \\ 91.9 \\ 101.5$	101.7 99.4 99.4
linois Hybrid 538. Linois Hybrid 538. Linois Hybrid 533.	82.2 85.6	81.3 84.3 71 0	52 72 70	78.8 35.8 37.3	101.5 105.2 88.6	95.8 87.9 80.8
lation renow Dent. riginal Krug. olden Beauty.	66.6 62.0	64.9 59.8	2020	71.6	81.0	78.7
Average of all entriesAverage of open-pollinated varieties	81.1	80.1 68.0ª	69.8	· · · · · · · · · · · · · · · · · · ·	· · · · ·	· · · · ·

•

BULLETIN No. 427

RESULTS OF SILAGE TESTS

(Tables 13 and 14, pages 315 and 316)

Three silage tests of corn varieties and hybrids were conducted in 1935. The fields were located near Algonquin in McHenry county, Maple Park in DeKalb county, and at Urbana¹ in Champaign county. The DeKalb field was destroyed by hail a few days before harvest, so no records were obtained from it. The other two fields were harvested.

In the Algonquin test the corn was planted in small, replicated plots the same size as in the other performance tests, but the plants were spaced 10 inches apart instead of in hills, simulating drilling conditions. The results are reported in Table 13.

On the Urbana field the corn was drilled with a corn planter in the regular way, in strips of approximately 80 rods running the length of the field. Every third strip was planted with an open-pollinated variety, Station Yellow Dent, which served as a check. Illinois Hybrid 912 and Funk Hybrids 206, 207, and 220L, were planted in strips 40 rows wide. The remainder of the entries were grown in strips 10 rows wide.

The general performance rating of the various entries was based on total yield of dry matter and lodging resistance. Total yield of dry matter was given three times the weight of lodging resistance.

In the Urbana and Algonquin tests additional records were made on the composition of the silage with respect to proportion of stalks, leaves, and ears. All the hybrids tested at Urbana, with one exception, had a higher proportion of their weight in the ears than had the openpollinated variety (Table 14). The open-pollinated variety was taller than any of the hybrids, except Illinois Hybrid 13. The hybrids all stood more erect than the open-pollinated variety, altho all the entries tested were satisfactory in this respect.

At Algonquin the differences in production between the hybrids and open-pollinated varieties were not so marked as at Urbana, with the exception of several of the experimental hybrids. The outstanding feature of this test was the high lodging resistance shown by practically all the hybrids compared with the resistance of the open-pollinated varieties.

(For further discussion of hybrid seed, see page 317)

¹The field at Urbana was grown in cooperation with the Department of Dairy Husbandry.

Danl	L. ster.	Acre-yi	Acre-yield of dry matter	natter	Moisture	Erect	Performance rating for—	ice rating	General perform-	1930]
		Total	Blades	Ears	at harvest	plants	Lodging resistance	Total yield	ance rating	
	Regula	r division-	entries in	commerc	Regular division—entries in commercial production					
-		tons	tons	tons	perct.	perct.	perct.	perct.		
- (Illinois Hybrid 368.	2.77	.50	1.43	66.0 2	87	132.2	97.9	106.5	1.
40	Uelsalb Hybrid 3A	16.7	05.	1.04	01.3	00 00	100.3	104.9	103.8	
04	WeDD WIII CO. Favorite	5.04 2.04	66. 64	1.49 1.44	02.0	35 26	23.25	101.4	93.9 83.6	
	• Average of 4 best open-pollinated varieties	2.61	47	1.34	62.9	31	47.1	02.1	0.08	15
S	Gunn Western Plowman	2.52	.44	1.37	62.9	35	53.2	89.0	80.1	0
9	Greenlee Yellow Dent	2.23	.46	1.06	63.5	18	27.3	78.8	65.9	111
	Average of division	2.70	.48	1.41	63.2	46.2	70.2	95.2	89.0	• 1
	Experiment	al division	entries n	ot in comi	Experimental division—entries not in commercial production	ction				LAFU
-	Illinois Hybrid 766	3.66	.82	1.68	64.6	91	138.2	129.3	131.5	KM1
7	DeKalb Hybrid 84	3.30	.52	1.86	63.9	92	139.7	116.6	122.4	
ŝ	DeKalb Hybrid 93	3.42	.52	1.79	63.0	68	103.3	120.8	116.4	CL
4	Illinois Hybrid 44	3.29	.64	1.57	67.6	72	109.4	116.3	114.6	
ŝ	Illinois Hybrid 746.	3.04	.60	1.46	63.9	89	135.2	107.4	114.4	. 1
0	Wisconsin Hybrid 10.	3.06	.47	1.78	61.0	71	107.8	108.1	108.0	513
-	Illinois Hybrid 29.	2.92	.57	1.43	66.4	78	118.5	103.2	107.0	5 1
×	Wisconsin Hybrid 525	2.89	.43	1.68	57.3	22	106.3	102.1	103.2	
2 <u>5</u>	Wisconsin Hybrid 9.	2.79	.47	1.54	63.2	73	110.9	98.6	101.7	5
2:	Wisconsin Hubrid 770	00.7	4. 4.	1.42	03.1	80	130.0	91.9 200 k	00.101	
12	Wisconsin Hybrid 11	2.71	46	1 43	0.59	35	100 4	0.50	÷.00	
13	DeKalb Hvbrid 210	2.61	44	1.52	61.7	189	103.3	02.20	02.0	
14	DeKalb Hybrid 38.	2.52	.40	1.33	65.1	74	112.4	89.0	94.9	
15	DeKalb Hybrid 81	2.80	.54	1.41	65.9	46	60.0	98.9	91.7	
16	Wisconsin Hybrid 531	2.27	.38	1.27	61.3	67	101.8	80.2	85.6	
17	DeKalb Hybrid 372	2.32	.40	1.19	64.6	43	65.3	82.0	77.8	
	Average of division	2.87	.50	1.52	63.7	72.4	110.0	101.6	104.0	313
	Average of all entries	2.83	.49	1.49	63.5	65.8	:	:		
									6	

1936]

TABLE 13.—SILAGE TEST: ALGONQUIN, NORTHEASTERN ILLINOIS, PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1935

Illinois Corn Performance Tests 1935

315

	TABLE 14SILAGE TEST: URBANA, CENTRAL ILLINOIS, PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1935	NA, CENTR	AL ILLINOIS	, PERFOR	WANCE OF CO	DRN VARII	TIES AND Hy	VBRIDS , 193	55
		Acre-yi	Acre-yield of dry matter	natter	Moisture	Erect	Performance rating for—	ce rating _	General perform-
Kank	Entry Entry	Total	Blades	Ears	at harvest	plants	Lodging resistance	Total yield	ance rating
	Regi	ılar divisio	n-entries i	n comme	Regular division—entries in commercial production	uo			
		tons	tons	tons	perct.	perct.	perct.	perct.	
1	Funk Hybrid 220L	4.94	.65	2.79	67.9	93.8	102.3	111.4	109.1
2	Illinois Hybrid 543	4.70	69.	2.51	64.1	88.6	96.6	106.0	103.7
ŝ	Funk Hybrid 206	4.51	.71	2.12	69.2	96.0	104.7	101.7	102.4
4	Station Yellow Dent	4.08	09.	1.93	68.2	83.4	90.9	92.0	7.16
ŝ	Illinois Hybrid 384	3.84	.53	2.16	65.5	94.4	102.9	80.0	1.06
	Average of division	4.41	.64	2.30	67.0	91.2	99.5	. 99.5	99.5
	Experime	ental divisio	on-entries	<i>not</i> in co	Experimental division—entries not in commercial production	duction			
-	Illinois Hybrid 560	5.12	.75	2.86	64.7	95.1	103.7	115.4	112.5
7	Illinois Hybrid 912.	5.12	.75	2.54	60.9	93.5	102.0	115.4	112.1
3	Illinois Hybrid 39	4.94	.84	2.33	67.3	92.1	100.4	111.4	108.7
4	Funk Hvbrid 207	4.79	.71	2.25	67.4	92.4	100.8	108.0	106.2
ŝ	Illinois Hybrid 562	4.72	.66	2.57	63.4	94.3	102.8	106.4	105.5
9	Illinois Hybrid 54	4.47	.66	2.19	67.3	90.1	98.2	100.8	100.1
2	Γ	4.18	.63	2.17	66.1	89.1	97.5	94.2	95.0
×	-	4.19	.67	2.15	63.7	86.4	94.4	94.5	94.5
6	Π	4.04	.59	2.13	67.3	95.8	104.5	91.1	94.4
10	Illinois Hybrid	4.05	.49	2.25	62.8	85.7	93.5	91.3	91.8
11	I	3.83	.53	2.11	62.9	96.1	104.8	86.3	90.9
12	Illinois Hybrid 546	3.89	.51	1.75	66.6	91.9	100.2	87.7	90.8
	Average of division	4.45	.65	2.28	66.0	91.9	100.2	100.2	100.2
	Average of all entries	44.4	.65	2.28	66.3	91.7	:	:	•

.

Bulletin No. 427

[December,

HYBRIDS TESTED FOR TWO YEARS

(Tables 15 to 17, pages 318 to 320)

Of the many hybrids tested in 1934 and 1935, twenty-five have been included in the tests both years.

In the northern section every hybrid exceeded the average of the five best open-pollinated varieties by a substantial margin (Table 15). In the north-central section nine of the sixteen hybrids surpassed the average of the five best open-pollinated entries in general performance rating for the two years (Table 16). In the central section every hybrid exceeded the average of the five best open-pollinated varieties for the two years (Table 17).

PERFORMANCE OF SECOND-GENERATION HYBRID SEED

(Table 18, page 321)

Corn growers are asking what will happen if they select seed from a field of first-generation hybrid corn for planting the next year. An entry of such seed from a double cross was included in the performance tests on four of the Illinois fields in 1935.

In resistance to lodging the second-generation hybrid was better by 11.7 percent than the average of the five best open-pollinated varieties but was inferior to the first-generation hybrid by 8.2 percent. Secondgeneration seed yielded 3 bushels less of sound corn than the openpollinated varieties and 18 bushels less than first-generation seed.

In a yield test of first- and second-generation seed of double crosses conducted in 1932 in Ohio,¹ the first-generation hybrid seed averaged 78.5 bushels an acre and the second-generation 66.4 bushels, a reduction of 15.4 percent. In the ten individual comparisons the reductions ranged from 5 to 24 percent. At the Wisconsin Agricultural Experiment Station² ten first-generation double-cross hybrids averaged 64.1 bushels an acre; second-generation hybrids, 54.0 bushels; a reduction of 15.8 percent. The open-pollinated check yielded 53.1 bushels. In every comparison second-generation hybrid seed yielded less than first-generation, the reductions ranging from 11.0 to 27.9 percent.

Thus while the Illinois test was made with only one hybrid and in only one year, the results agree very well with those from Ohio and Wisconsin in showing the reductions in yield from second-generation hybrid seed as compared with first-generation seed.

¹RICHEY, F. D., STRINGFIELD, G. H., and SPRAGUE, G. F. The loss in yield that may be expected from planting second generation double-crossed seed corn. Jour. Amer. Soc. Agron. 26, 196-199. 1934. ²NEAL, N. P. The decrease in yielding capacity in advanced generations

of hybrid corn. Jour. Amer. Soc. Agron. 27, 666-670. 1935.

TABLE 15TWO-YEAR SUMMARY, NORTHERN ILLINOIS: PERFORMANCE OF HYBRID ENTRIES GROWN IN BOTH 1934 AND 1935	TINOIS:	PERFORMA	NCE OF HYI	BRID ENTRIE	S GROWN	IN BOTH 193	4 AND 1935
	Perfo	Performance in 1934	1934	Perfo	Performance in 1935	1935	Average
Entry .	Erect plants	Sound yield	General perform- ance rating	Erect plants	Sound yield	General perform- ance rating	of general perform- ance rating
	(Stock	(Stockton and Rochelle)	chelle)	(Stockton,	(Stockton, Rochelle, Plainfield)	Plainfield)	
Illinois Hybrid 172. Illinois Hybrid 368. Funk Hybrid 214. Pourk Hybrid 214.	<i>perct.</i> 66.4 60.8 65.5	bu. 71.6 70.9 66.5	126.1 122.7 116.0	perct. 84.0 85.2 86.3	bu. 92.1 93.6 79.7 85.9	109.6 109.8 98.7 104.6	117.8 116.3 107.4 104.1
Average of 5 best open-pollinated varieties	57.5*	47.0	81.4	73.2	76.9	92.5	86.9
	(Roch	(Rochelle and DeKalb)	eKalb)	(Stockton,	(Stockton, Rochelle, Plainfield)	Plainfield)	
Pioneer Hi-Bred 351 Average of 5 best open-pollinated varieties	67.9 27.9 ^b	26.4 17.7 ^b	98.6 78.2	91.2 73.2	76.0 76.9	97.1 92.5	97.9 85.4
		(DeKalb)		(Stockton,	(Stockton, Rochelle, Plainfield)	Plainfield)	
Illinois Hybrid 366 Pioneer Hi-Bred 323 Average of 5 best open-pollinated varieties	55.0 67.5 53.3°	27.4 14.9 13.9°	140.3 92.4 81.8	84.2 78.3 73.2	93.1 91.3 76.9	110.6 107.2 92.5	125.5 99.8 87.2
*Average of 4 varieties at Stockton and 3 at Rochelle. ^b Average of 4 varieties at DeKalb and 3 at Rochelle. •Average of 4 varieties.	ย่.						

[December,

TABLE 16.—TWO-YEAR SUMMARY, NORTH-CENTRAL ILLINOIS: ENTRIES GROWN IN BOTH 1934 AND 1935	NORTH- Grown in	AMARY, NORTH-CENTRAL ILLINOI ENTRIES GROWN IN BOTH 1934 AND 1935	ILLINOIS And 1935		PERFORMANCE OF HYBRID	I YBRID	
	Perf	Performance in 1934	1934	Perfo	Performance in 1935	1935	Average
Entry	Erect plants	Sound yield	General perform- ance rating	Erect plants	Sound yield	General perform- ance rating	of general perform- ance rating
	(Granv	(Granville and Galesburg)	sburg)	(Cambridg	(Cambridge, Granville, Dwight)	e, Dwight)	
Illinois Hybrid 172.	perct. 63.7	bu. 32.5	126.9	<i>perct.</i> 90.3	bu.97.5	107.3	117.1
Funk Hybrid 206	71.9 57 0	31.2	125.4	87.8 85.4	89.2 103.4	99.8 110.6	112.6
Funk Hybrid 214.	74.4	27.2	108.3	89.0	91.6	102.1	105.2
Iowa Hybrid 13.	62.5	28.0	103.5	79.1	92.8	100.1	101.8
Morgan Hybrid M.W.106 Morgan Hybrid M W 104	58.4 55.4	17.9	68.3 61 9	84.8 85.3	6.06	100.2 90.0	84.3 80 0
Average of 5 best open-pollinated varieties	48.0	25.1	94.7	67.3	86.9	91.7	93.2
		(Galesburg)		(Cambridg	(Cambridge, Granville, Dwight)	e, Dwight)	
Illinois Hybrid 360.	73.8	50.0	130.1	89.3	107.9	115.5	122.8
Illinois Hybrid 372	61.3	43.4	111.7	90.1 22.1	95.7	99.2	105.5
Morgan Hybrid M.W.105	48.3	27.7	75.3	87.3	92.1	102.0	88.7
Floneer Hi-Bred 300	59.0 59.0	20.5 24.8	/0.1 74.4	87.5	93.2 83.2	94.8	84.6
Average of 5 best open-pollinated varieties	50.0	39.9	100.9	67.3	86.9	91.7	96.3
		(Granville)		(Cambridg	(Cambridge, Granville, Dwight)	e, Dwight)	
Pfister Hybrid 584	63.1	13.9	96.7	82.4	100.4	107.3	102.0
Funk Hybrid 220	61.3	12.9	90.9	97.4	93.6	103.3	97.1
Iowa Hybrid 942	46.9 76 0	10.9 6.4	74.8 64.8	80.3 80.0	93.0 84 3	100.6 06.4	87.7 80.6
Average of 5 best open-pollinated varieties	53.2	13.1	88.4	67.3	86.9	91.7	90.1

1936]

Illinois Corn Performance Tests 1935

319

TABLE 17TWO-YEAR SUMMARY, CENTRAL ILLINOIS: PERFORMANCE OF HYBRID ENTRIES GROWN IN BOTH 1934 AND 1935	INOIS:	Performan	CE OF HYBI	RID ENTRIE	s Grown	IN BOTH 193	4 AND 1935
	Perfo	Performance in 1934	1934	Perfe	Performance in 1935	1935	Average
Entry	Erect	Sound yield	General perform- ance rating	Erect plants	Sound yield	General perform- ance rating	of general perform- ance rating
	(Min	(Minier and Tolono)	ono)	(Adair, B	(Adair, Bellflower, Armstrong)	trmstrong)	
Illinois Hybrid 508. Illinois Hybrid 360. Illinois Hybrid 391	perct. 82.3 75.0	bu. 68.7 61.6 68.2	123.2 111.1 121.8	perct. 72.6 72.8 53.4	bu. 79.1 91.9 82.4	98.2 109.7 94.0	110.7 110.4 107.9
Illinois Hybrid 172. Funk Hybrid 220. Funk Hybrid 220.	67.4 67.7 71.3	61.0 59.0	108.3 109.0	72.8 68.8 67.8	84.1 79.6 75.3	102.8 97.2 03.0	105.6 103.1
Funk Hybrid 208	73.7	50.0 50.0	111.2 94.2	60.5	74.5 88.7	. 89.5 103.8	100.4 99.1
Ioner II-Dred Julian Ju	71.2 61.2	51.4 51.4	92.6	56.6 56.6 45.1	83.1 73.4	95.9 84.6	90.7 88.6
		(Tolono)		(Adair, B	(Adair, Bellflower, Armstrong)	trmstrong)	
Pfister Hybrid 584Average of 5 best open-pollinated varieties	67.5 49.9	23.3 40.1	72.1 95.4	61.3 45.1	87.7 73.4	101.7 84.6	86.9 90.0
	(Southwe rotati	(Southwest and South-Central rotations, Urbana)	h-Central 1)	(Adair, B	(Adair, Bellflower, Armstrong)	trmstrong)	
Illinois Hybrid 384. Illinois Hybrid 172. Illinois Hybrid 360. Illinois Hybrid 391. Average of 5 best open-pollinated varieties	51.5 43.3 46.5 39.8 44.1ª	58.4 61.7 53.8 38.3	120.1 122.5 111.0 105.6 83.7	87.5 72.8 72.8 53.4 45.1	84.4 84.1 91.9 82.4 73.4	108.4 102.8 109.7 94.0 84.6	114.3 112.7 110.4 99.8 84.2
Average of 3 varieties on the South-Central rotation.	и.						

.

[December,

	Acre-yield	yield	Moisture	E enot	Performance rating for—	ce rating	General
Seed	Total	Sound	- in grain at harvest	plants	Lodging resistance	Sound yield	ance rating
Cambridge First-generation hybrid	bu. 115.7 95.0 94.7	bu. 112.2 93.0 91.0	perct. 20.9 21.6 22.1	perct. 73.0 69.0 52.9	perct. 97.5 92.1 70.6	<i>perct.</i> 113.5 94.1 92.1	109.5 93.6 86.7
<i>Granville</i> First-generation hybrid	89.0 75.6 78.2	88.1 74.8 76.7	19.8 19.6 21.6	93.8 91.2 79.1	$ \begin{array}{c} 101.3 \\ 98.5 \\ 85.4 \end{array} $	107.3 91.1 93.5	105.8 93.0 91.5
Duright First-generation hybrid Second-generation hybrid Average of 5 best open-pollinated varieties	112.5 90.0 98.7	110.0 87.6 95.1	18.6 19.1 20.5	89.1 74.0 68.2	103.0 85.2 78.4	109.1 86.9 94.3	107.6 86.5 90.3
DeKalb First-generation hybrid Second-generation hybrid Average of 5 best open-pollinated varieties	73.7 56.2 60.6	73.7 56.2 60.6	23.7 23.6 21.9	84.5 78.5 79.9	94.0 87.3 88.8	$109.2 \\ 83.3 \\ 89.9$	105.4 84.3 89.6
Average First-generation hybrid Second-generation hybrid Average of 5 best open-pollinated varieties	97.7 79.2 83.1	96.0 77.9 80.9	20.8 21.0 21.5	85.2 78.2 70.0	99.0 90.8 80.8	109.8 88.9 92.5	$107.1 \\ 89.4 \\ 89.6$

SUMMARY

Corn performance tests in 1935 were conducted in seven different geographical sections of Illinois. Two hundred seventy-four kinds of corn were included, of which 46 were open-pollinated varieties, 26 composite samples of open-pollinated corn, and 202 hybrids.

In all sections of the state the hybrids demonstrated their superiority over the best open-pollinated varieties. In the central and northcentral sections the yield of the five best hybrids exceeded that of the five best open-pollinated varieties by 18.2 and 20.3 bushels, respectively, of sound corn an acre; and in the southeastern section, by 6.0 bushels. The greatest differences occurred on land of high productivity.

In the silage tests the hybrid entries did not greatly surpass the open-pollinated entries in total yield of silage, but they did surpass them in the grain fraction, which means in feeding value. The good hybrids were also superior to the open-pollinated varieties in standing ability.

Yields from second-generation hybrid seed were no greater than from adapted open-pollinated varieties and were much below the yields of first-generation hybrids.

For these performance tests, major soil types were selected and care was taken to see that each field was uniform as to soil type. While seasonal conditions caused late planting on most fields, favorable growing conditions followed. Frosts in late September and early October stopped the growth of all cold-susceptible entries, and fall weather was generally unfavorable for the curing of corn. At Cambridge, in the north-central section, and at all fields in the central, south-central, and southern sections, yields were affected by lodging caused by southern corn rootworm infestation.

Farmers are cautioned that tests such as these will yield varying results from season to season, and that more than one or two years are necessary to establish the superiority of specific hybrids or varieties for different sections of the state. The broad differences demonstrated during the past two years between the best hybrids and the best openpollinated varieties appear, however, to be decisive in indicating the probable place of hybrid seed in the state's future corn economy. APPENDIX

BULLETIN No. 427

[December,

		Acre	-yield	Damageo		Frent	Perfor rating		General
Rank	Eatry	Total	Sound	sample	ture in grain at harvest	Erect plants	Lodging resist- ance	Sound yield	- perform ance rating
	Regular divi	sion—en	tries in c	ommercia	l producti	on			
	Tillesia Mataid 170	bu.	bu.	perct.	perct.	perct.	perct.	perct.	112 0
12	Illinois Hybrid 172 Illinois Hybrid 368	100.7 100.2	93.9 96.9	6.75 3.29	24.7 23.2	72.5 62.5	106.8 92.1	116.1 119.8	113.8 112.9
2	Illinois Hybrid 366	97.5	94.3	3.28	24.0	69.2	101.9	116.6	112.9
2 3	DeKalb Hybrid 3A	90.4	87.1	3.65	22.7	79.2	116.7	107.7	110.0
4	Funk Hybrid 215.	93.4	87.4	6.42	25.2	75.0	110.5	108.0	108.6
5 6	Pioneer Hi-Bred 323 Pioneer Hi-Bred 351	95.7 83.3	90.1 78.0	5.85 6.36	$22.3 \\ 22.3$	60.8 81.7	89.6 120.3	111.4 96.4	106.0 102.4
7	Simmons Will County Favorite	93.6	90.2	3.63	22.9	50.8	74.8	111.5	102.3
8	Iowa Hybrid 931	88.8	84.6	4.73	22.3	64.2	83.5	104.6	99.3
9	Funk Hybrid 214. Average of 5 best open-pollinated var	85.1	77.4	9.05	24.9	69.2	101.9	95.7	97.3
10	Average of 5 best open-pollinated var	84.5	80.8	4.38	22.8 21.5	54.0	79.5 73.6	99.8	94.8
11	Pioneer Hi-Bred 311 Evans Will County Favorite	94.6 80.8	81.3 76.8	14.06 4.95	21.5	76.7 60.0	88.4	100.5 94.9	93.8 93.3
12	Eckhardt Western Plowman	83.4	78.4	6.00	22.9	55.8	82.2	96.9	93.2
13	Curtiss Western Plowman	82.9	79.8	3.74	22.9	51.7	76.2	98.6	93.0
14	Gunn Western Plowman	81.6	78.7	3.55	23.2	51.7	76.2	97.3	92.0
15	Webb Will County Favorite.	81.3	76.3	6.15	22.9	50.0	73.6	94.3	89.1
16 17	Community composite (Barbak) ¹ Community composite (Semesan Jr.)	71.9 72.4	68.8 67.2	4.31 7.18	23.0 23.0	53.3 50.8	78.5 74.8	85.0 83.1	83.4 81.0
18	Community composite (untreated)	66.9	62.0	7.32	22.7	47.5	70.0	76.6	75.0
	Average of division	86.6	81.5	5.89	23.1	62.2	89.0	100.8	97.9
	Experimental div								
$\frac{1}{2}$	*Illinois Hybrid 586	96.7	93.0	3.83 7.37	23.0	86.7	127.7	115.0	118.2
	*Illinois Hybrid 751. *DeKalb Hybrid 93	100.4	93.0 97.1	5.64	24.2 23.3	85.0 70.0	125.2 103.1	115.0 120.0	117.6 115.8
4	*Wisconsin Hybrid 14	93.9	90.1	4.05	23.0	80.0	117.8	111.4	113.0
5	Illinois Hybrid 570	96.4	91.8	4.77	23.7	74.2	109.3	113.5	112.5
6	*Wisconsin Hybrid 15	93.6	86.5	7.59	23.7 23.2 23.2	83.3	122.7	106.9	110.9
1	"Dekald Hybrid 119	98.1	93.0	5.20	23.2	66.7	98.2	115.0	110.8
ŝ	•Wisconsin Hybrid 4. •Wisconsin Hybrid 5.	91.5 84.6	87.9 83.4	3.93	24.0 21.0	76.7 85.0	113.0 125.2	108.7 103.1	109.8 108.6
	*DeKalb Hybrid 104	93.9	88.6	5.64	22.9	71.7	105.5	109.5	108.5
11	Wisconsin Hyprid 2	91.7	86.8	5.34	22.5	75.0	110.5	107.3	108.1
12	*National Hybrid 9	94.9	89.0	6.22	24.2	68.3	100.6	110.0	107.7
13 14	*Pioneer Hi-Bred 439	89.6 94.5	84.7	5.47	23.2	75.0	110 5	104.7	106.2
15	*Wisconsin Hybrid 7. *Pioneer Hi-Bred 2086A	89.1	88.1 81.3	6.77 8.75	24.0 21.3	65.0 78.0	95.7 115.3	108.9 100.5	105.6 104.2
16	*Wisconsin Hybrid 6.	93.4	88.4	5.35	24.0	60.0	88.4	109.3	104.1
17	*Wisconsin Hybrid 6. *Wisconsin Hybrid 17. *Pinners Hi-Band 2122	89.9	84.3 80.7	6.23	23.7	70.0	103.1	104.2	103.9
18	Pioneer Hi-Bred 2123. Pioneer Hi-Bred 3377.	89.7	80.7	10.03	22.7	78.3	115.3	99.8	103.7
19 20	Pioneer Hi-Bred 3377 Pioneer Hi-Bred 3500	85.2 94.8	80.3 85.3	5.75 10.02	23.0 23.5	78.3 63.3	113.0 93.2	99.3 105.4	102.7 102.4
20	Iowa Hybrid 3294	85.9	78.1	9.08	23.5	80.8	119.0	96.5	102.1
22	DeKalh Hybrid 07	88.5	81.3	8.14	24.3	71.6	105.6	100.5	101.8
23	*Wisconsin Hybrid 8	90.2	74.6	16.85	24.0	80.0	117.8	92.2	98.6
24 ·	Wisconsin Hybrid 3	79.3	75.5	4.79	21.7	73.3	108.0	93.3	97.0
25 26	*Ohio Hybrid 4. *Pioneer Hi-Bred 2113	80.9 81.3	76.1 71.8	5.93 11.69	$22.3 \\ 22.5$	61.6 75.0	99.7 110.5	93.9 88.8	95.4 94.2
27	Wisconsin Hybrid 13.	88.3	78.0	11.69	22.5	58.3	85.9	96.4	93.8
27 28	Wisconsin Hybrid 16	88.9	83.6	5.96	23.9	43.3	63.8	103.3	93.4
29	*Ohio Hybrid 5	89.0	79.8	10.34	23.7	51.7	76.1	98.6	93.0
30 31	*DeKalb Hybrid 118	88.4	79.6	9.95	24.0	51.7	76.1	98.4	92.8
31 32	*Iowealth Hybrid B. C *Ohio Hybrid 3	88.0 74.5	66.2 64.3	24.77 13.69	24.3 22.3	73.3 75.0	108.0 110.5	81.8 79.5	88.4 87.3
33	*Iowealth Hybrid B. J.	76.9	66.9	13.00	23.3	66.7	98.1	82.7	86.6
34	DeKalb Hybrid 410	67.4	64.8	3.86	24.3	68.3	100.6	80.1	85.2
35	*Ohio Hybrid 3 *Iowealth Hybrid B. J *DeKalb Hybrid 410 *DeKalb Hybrid 151	62.0	56.5	8.87	23.9	76.7	113.0	69.8	80.6
36	Denalo Hyprid 495	52.3	49.6	5.16	23.3	83.3	122.7	61.3	76.7
	Average of division	87.4	80.6	7.78	23.3	71.1	105.8	99.6	101.1
	Average of all entries	87.1	80.9	7.12	23.2	68.0			

TABLE 19.—STOCKTON, NORTHERN ILLINOIS: PI VARIETIES AND HYBRIDS, 1935 PERFORMANCE OF CORN

*Average of 3 plots instead of 6. The community composite entry was used in some of the tests to study the influence of seed treatment.

Rank	Entry -		-yield	Damaged	ture in	Erect	Tanna	for-	General perform
		Total	Sound	shelled sample	grain at harvest		Lodging resist- ance	Sound yield	ance rating
	Regular divis	ion—en	tries in c	ommercia	l producti	on			
	TH: : TT 1 : 2000	bu.	bu.	perct.	perct.	perct.	perct.	perct.	110.0
12	Illinois Hybrid 366 Illinois Hybrid 172	96.0 94.3	94.4 90.4	1.67 4.14	21.1 21.4	93.5 91.0	$103.4 \\ 100.7$	120.4 115.3	116.2 111.7
3	Illinois Hybrid 368	90.8	89.1	1.87	21.4	91.0	100.7	113.6	110.4
34	Pioneer Hi-Bred 323	91.6	88.5	3.38	20.1	90.0	99.6	112.9	109.6
5	DeKalb Hybrid 3A	85.7	84.2	1.75	20.5	89.0	98.5	107.4	105.2
6	Pioneer Hi-Bred 311	87.2	82.4	5.50	19.9	91.8	101.6	105.1	104.2
7	Iowa Hybrid 931	82.6	81.4	1.45	20.2	86.5	95.7	103.8	101.8
8	Funk Hybrid 215.	82.6	77.2	6.54	23.0	90.5	100.1	98.5	98.9
10	Funk Hybrid 214. Eckhardt Western Plowman	76.9 75.3	74.9 74.0	$2.60 \\ 1.73$	$23.5 \\ 20.7$	92.0 85.5	101.8 94.6	95.5 94.4	97.1 94.5
11	Pioneer Hi-Bred 351	72.1	69.5	3.61	20.6	98.1	108.5	88.6	93.6
12	Webb Will County Favorite	75.1	74.5	.80	21.0	79.2	87.6	95.0	93.2
13	Community composite (Semesan Jr.).	72.3	70.7	2.21	20.7	76.5	84.6	90.2	88.8
14	Simmons Will County Favorite	70.1	69.0	1.57	21.0	81.0	89.6	88.0	88.4
•	Average of 5 best open-pollinated var	70.0	68.8	1.71	20.8	81.7	90.4	87.7	88.4
15	Community composite (Barbak)	65.6 65.9	65.7 64.6	$1.35 \\ 1.97$	21.1 20.4	75.5 79.2	83.5 87.6	83.8 82.4	83.7 83.7
15 16	Evans Will County Favorite Community composite (untreated)	67.9	66.2	2.50	20.4	73.5	81.3	84.4	83.6
17	Gunn Western Plowman	63.7	61.8	2.98	21.0	83.5	92.4	78.8	82.2
	Average of division	78.7	76.6	2.67	21.0	86.0	95.1	97.7	97.0
		_							01.0
	Experimental div	Islon-e	ntries not	in comm	ercial pro	auction	-		
1	*Illinois Hybrid 751	92.1	91.0	1.19	22.1	98.0	108.4	116.1	114.2
2	*DeKalb Hybrid 93	95.2	94.0	1.26	21.0	87.0	96.2	119.9	114.0
3 4	Illinois Hybrid 570 *Wisconsin Hybrid 6	92.2 92.4	91.0 90.5	$1.30 \\ 2.06$	22.9 22.3	94.4 91.0	104.4 100.7	116.1 115.4	113.2 111.7
5	*Illinois Hybrid 586.	90.6	89.2	1.55	21.4	95.0	105.1	113.8	111.6
6	*DeKalb Hybrid 119	90.8	89.7	1.21	21.4	92.6	102.4	114.4	111.4
7	*DeKalb Hybrid 104	90.4	87.7	2.99	21.9	94.0	104.4	111.9	110.0
8	*DeKalb Hybrid 118	87.3	86.8	. 57	21.2	95.1	105.2	110.7	109.3
9	*National Hybrid 9	89.2	87.8	1.57	20.8	91.0	100.7	112.0	109.2
10 11	*DeKalb Hybrid 97	84.4	83.9 84.3	.59 2.54	21.4 22.3	94.0 91.6	104.4 101.3	107.0 107.5	106.4 106.0
12	*Iowealth Hybrid B. J *Pioneer Hi-Bred 2086A	86.5 85.0	83.7	1.53	19.7	91.6	101.3	107.5	105.7
13	*Wisconsin Hybrid 4	83.4	82.2	1.44	21.1	97.6	108.0	104.8	105.6
14	DeKalb Hybrid 108	87.6	83.7	4.45	21.0	91.8	101.6	106.8	105.5
15	Wisconsin Hybrid 13	85.3	83.5	2.11	21.9	90.7	100.3	106.5	105.0
16	*DeKalb Hybrid 102	81.5	80.5	1.23	21.4	96.6	106.9	102.7	103.8
17 18	*Pioneer Hi-Bred 439	78.9	77.9	1.27 2.45	19.6 21.9	96.0 88.0	106.2 97.4	99.4 101.7	101.1 100.6
18	*DeKalb Hybrid 477 *Wisconsin Hybrid 2	81.7 79.5	79.7 78.6	1.13	20.7	91.6	101.3	100.3	100.6
19	*Ohio Hybrid 4	83.1	80.2	3.49	21.0	84.0	92.9	102.3	100.0
20	*Wisconsin Hybrid 7	76.9	76.2	.91	21.9	96.0	106.2	97.2	99.5
21	*Wisconsin Hybrid 5	75.3	74.0	1.73	20.1	98.6	109.1	94.4	98.1
22	*Pioneer Hi-Bred 2123	77.5	73.7	4.90	21.4	97.0	107.3	94.0	97.3
23 24	*Wisconsin Hybrid 3	73.7	73.4	.41	19.7	94.6	104.7	93.6	96.4
24 25	*Ohio Hybrid 5 *Wiegongin Hybrid 8	81.7 74.4	$77.1 \\ 71.7$	5.63 3.63	22.1 22.9	81.0 96.0	89.6 106.2	98.3 91.5	96.1 95.2
26	*Wisconsin Hybrid 8 *Iowealth Hybrid B. C	75.7	70.9	5.03 6.34	22.3	92.6	100.2	90.4	93.4
27	*Pioneer Hi-Bred 2113	69.5	66.4	4.46	20.7	93.6	103.5	84.7	89.4
28	*DeKalb Hybrid 416	65.6	64.3	1.98	21.7	95.0	105.1	82.0	87.8
29	*DeKalb Hybrid 410	58.1	57.0	1.89	23.2	92.0	101.8	72.7	80.0
30	*Ohio Hybrid 3	56.7	54.1	4.59	21.2	93.0	102.9	69.0	77.5
	Average of division	81.4	79.5	2.33	21.4	93.0	102.9	101.4	101.8
	Average of all entries	80.4	78.4	2.49	21.3	90.4		••••	••••

TABLE 20.—ROCHELLE, Northern Illinois: Performance of Corn Varieties and Hybrids, 1935

BULLETIN No. 427

[December,

	_	Acre	-yield	Damaged corn in	Mois- ture in	Erect	Perform		Genera - perform
Rank	Entry	Total	Sound	shelled sample	grain at barvest	plants	Lodging resist- ance	Sound yield	ance rating
	Regular divi	sion—en	tries in c	ommercial	producti	on			
		bu.	bu.	perct.	perct.	perct.	perct.	perct.	100
1	Illinois Hybrid 368	95.8	94.8	1.04	20.9	87.2	97.1	112.9	109.0
2 3	Pioneer Hi-Bred 323	99.6 95.5	95.4 94.4	4.22 1.15	21.1	84.0 84.5	93.5 94.1	113.6	108.6 107.8
4	Iowa Hybrid 931 Pioneer Hi-Bred 311	95.5 95.1	91.5	3.79	$18.9 \\ 21.3$	91.0	101.3	108.9	107.8
5	Illinois Hybrid 172.	95.9	91.7	4.38	21.9	88.5	98.5	109.2	106.5
6	Illinois Hybrid 366	92.2	90.6	1.74	22.4	90.0	100.2	107.9	106.0
7	DeKalb Hybrid 3A	87.8	86.9	1.03	19.9	90.6	100.9	103.5	102.9
8	Simmons Will County Favorite	89.0	88.4	.67	20.5	84.0	93.5	105.2	102.3
9	Webb Will County Favorite	88.9	86.9	2.25	21.5	82.0	91.3	103.5	100.5
10 11	Funk Hybrid 214 Funk Hybrid 215	87.7 89.2	86.1 84.6	$1.82 \\ 5.16$	$23.5 \\ 22.9$	94.5 87.0	94.1 96.8	102.5 100.7	100.4 99.7
12	Pioneer Hi-Bred 351	83.6	80.3	3.95	20.6	93.8	104.4	95.6	97.8
	Pioneer Hi-Bred 351 Average of 5 best open-pollinated var	83.5	81.9	1.91	21.5	84.1	93.7	97.5	96.6
13	Eckhardt Western Plowman	82.2	79.4	3.41	20.9	86.7	96.5	94.5	95.0
14	Community composite (Barbak)	81.4	79.0	2.95	21.7	85.0	94.6	94.0	94.2
15	Community composite (Semesan Jr.)	82.4	79.9	3.03	21.7	79.5 83.5	88.5	95.0 93.2	93.4 93.1
16 17	Gunn Western Plowman Community composite (untreated)	79.2 79.9	78.3 77.5	$1.14 \\ 3.00$	22.5 21.7	83.5	93.0 93.0	93.2 92.3	93.1
18	Evans Will County Favorite	78.3	76.5	2.30	22.3	84.5	94.1	91.1	91.9
	Average of division	88.0	85.7	2.61	21.5	86.7	95.8	102.0	100.5
	Experimental div	Ision—e	atries not	in comme	ercial proc				
1	*DeKalb Hybrid 97	103.9	103.4	.48	21.4	93.0	103.5	123.1	118.2
2 3	*DeKalb Hybrid 93	103.6	103.2 95.8	.39	19.9 22.5	92.0 90.0	102.4 100.2	122.9 114.0	117.8 110.6
4	*National Hybrid 9 *Wisconsin Hybrid 6	98.2	95.8 96.4	2.45 1.83	22.5	84.0	93.5	114.8	109.5
5	*Illinois Hybrid 586.	94.5	90.9	3.81	20.7	92.6	103.1	108.2	106.9
6	*Pioneer Hi-Bred 439	92.8	89.1	3.99	19.3	95.6	106.4	106.1	106.2
7	*Wisconsin Hybrid 4	90.0	89.4	.67	21.7	94.0	104.6	106.4	106.0
8	*DeKalb Hybrid 102 *DeKalb Hybrid 104	89.2 92.0	88.5	.78 1.30	$18.6 \\ 20.2$	96.0 88.0	106.9 98.0	105.4 108.1	105.8
10	*Pioneer Hi-Bred 2123	92.0 89.3	90.8 87.9	1.57	20.2	96.2	107.1	104.6	105.0
11	*Illinois Hybrid 751.	88.0	86.9	1.25	24.3	94.0	104.6	103.5	103.8
12	*Wisconsin Hybrid 8	89.2	86.6	2.91	22.9	92.0	102.4	103.1	102.9
13	*Ohio Hybrid 4	89.9	88.2	1.89	21.7	86.2	96.0	105.0	102.8
14	*Inwealth Hybrid B. J.	88.2	86.3	2.15	20.2	92.0	102.4	102.7	102.6
15 16	*DeKalb Hybrid 118 *Iowealth Hybrid B. C	85.9 88.9	85.1 84.6	.93 4.84	$\frac{22.5}{22.9}$	93.3 94.6	103.9 105.3	101.3 100.7	102.0 101.9
17	*Pioneer Hi-Bred 2113.	89.1	86.2	3.25	21.3	88.0	98.0	102.6	101.5
18	Illinois Hybrid 570.	87.9	84.7	3.64	23.9	91.5	101.9	100.8	101.1
19	*Wisconsin Hybrid 3	83.5	82.7	.96	20.8	93.7	104.3	98.5	100.0
20	*Wisconsin Hybrid 2	86.5	83.7	3.24	20.0	89.0	99.1	99.6	99.5
21	*Wisconsin Hybrid 5.	81.1	80.5	.74	22.1	97.0	108.0	95.8	98.9 98.1
22 23	*Pioneer Hi-Bred 2086A Wisconsin Hybrid 1	85.3 83.9	82.1 81.0	3.75 3.46	20.8 24.5	89.0 90.5	99.1 100.7	97.7 96.4	97.5
24	*DeKalb Hybrid 119	83.7	81.5	2.63	22.7	88.2	98.2	97.0	97.3
25	*DeKalb Hybrid 477.	80.8	80 4	.50	23.2	91.0	101.3	87.0	97.1
26	*Ohio Hybrid 5	85.9	82.2	4.31	23.2	79.0	87.9	97.9	95.4
27	*Wisconsin Hybrid 7	83.7	79.6	4.90	23.2	86.6	96.4	94.8	95.2
28 29	*DeKalb Hybrid 416	74.5	73.3 74.2	1.61	$\frac{22.5}{21.3}$	95.6	106.4	87.3 88.3	92.1 91.6
30	*Ohio Hybrid 3 Iowa Hybrid 3294	75.4 77.8	73.2	1.59 5.91	21.3	91.0 92.5	$101.3 \\ 103.0$	87.1	91.1
31	*DeKalb Hybrid 410	68.6	68.1	.73	22.5	94.0	104.6	81.1	87.0
32	*DeKalb Hybrid 151	66.2	65.1	1.66	22.I	96.0	106.9	77.5	84.9
33	DeKalb Hybrid 159	61.9	60.4	2.42	22 I	93.3	103.9	71.9	79.9
34	*DeKalb Hybrid 373	55.7	54.8	1.62	23.4	92.0	102.4	65.2	74.5
	Average of division	85.1	83.1	2.35	21.9	91.5	101.9	98.7	99.7
	Average of all entries	86.1	84.0	2.44	21.7	89.8			

TABLE 21.—PLAINFIELD, NORTHERN ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1935

1936]

		Acre	-yield	Damaged corn in	Mois- ture in	Erect	Perform		Genera perform
Rank	Entry -	Total	Sound	sample	grain at harvest	plants	Lodging resist- ance	Sound yield	ance
	Regular divi	sion—en	tries in c	ommercial	l producti	ao			
1 2 3 4	Illinois Hybrid 360 Illinois Hybrid 360A. Illinois Hybrid 366	118 5	bu. 118.6 114.7 111.5	perct. 1.74 3.21 3.46	perct. 21.4 22.0 21.4	perct. 80 0 80.5 82.0	<i>perct.</i> 107.9 107.5 109.5	<i>perct.</i> 120.0 116.0 112.8	117.0 113.9 112.0
5	Illinois Hybrid 366. Pfister Hybrid 4857. Illinois Hybrid 384. Illinois Hybrid 364.	115.7 106.7 116.4	$112.2 \\ 105.5 \\ 112.6 \\ 111.4$	$\begin{array}{c} 6.05 \\ 1.12 \\ 3.26 \\ 2.62 \end{array}$	20.9 20.8 21.1 20.8	73.0 87.5 69.0 67.5	97.5 116.8 92.1 90.1	113.5 106.7 113.9 112.7	109.5 109.2 108.5 107.1
6 7 8 9 10	Pfister Hybrid 584. Illinois Hybrid 172. Funk Hybrid 214. Iowa Hybrid 939.	105.4 100.7 107.3	101.7 99.0 99.1	3.51 1.69 7.64	20.9 21.6 21.2	85.0 86.0 79.5	113.5 114.8 106.1	102.9 100.1 100.2	107.1 105.6 103.8 101.7
11 12 12 13	Funk Hybrid 214. Iows Hybrid 214. Iows Hybrid 399. M. W. Hybrid 111. Pioneer Hi-Bred 306. Funk Hybrid 220. M. W. Jubel 305.	100.4	97.9 100.6 98.1 97.7	6.05 7.02 2.29 5.60	19.7 20.1 22.8 19.9	82.0 73.5 79.0 78.8	109.5 98.1 105.5 105.2	99.0 101.7 99.2 98.8	101.6 100.8 100.8
13 14 15 16 17	M. W. Hybrid 105 Pioneer Hi-Bred 311 Iowa Hybrid 942. M. W. Hybrid 104	103.3 102.0 108.4 100.9	94.1 103.4 96.1	7.75 4.61 4.76	20.0 20.3 19.8	82.5 60.5 76.0	110.1 80.8 101.5	95.2 104.6 97.2	100.4 98.9 98.7 98.3
17 18 19 20	I lows Hybrid 942. M. W. Hybrid 104. Funk Hybrid 206. Funk Hybrid 215. Pioneer Hi-Bred 311A.		93.9 96.4 92.8	3.59 2.33 11.53	22.6 21.5 20.3 21.6	80.5 74.0 81.5	107.5 98.8 108.8	95.0 97.5 93.9 98.4	98.1 97.8 97.6
21 22 23	N. W. Hybrid 106. Hulting Yellow Dent. Iowa Hybrid 13. M. W. Hybrid 13. Funk Hybrid 208. McKeighan Yellow Dent. Iowanib Hybrid 208.	102.8 104.4 91.9	97.3 100.4 93.1 84.5	$ \begin{array}{r} 6.17 \\ 2.33 \\ 10.82 \\ 8.05 \end{array} $	20.3 21.4 20.7	70.5 60.5 64.0 78.0	94.1 80.8 85.4 104.1	90.4 101.5 94.2 85.5	97.3 96.3 92.0 90.2
24 25 26	Funk Hybrid 208. McKeighan Yellow Dent. Iowealth Hybrid B.	95.4 93.4 100.6 94.7	92.3 85.8 81.4 91.0	3.25 8.14 19.09 3.91	22.2 24.0 22.7 22.1	59.5 67.5 76.5 52.9	79.4 90.1 102.1 70.6	93.4 86.8 82.3 92.1	89.9 87.6 87.3 86.7
27 28 29	McCaegnan Tellow Dent. Iowealth Hybrid B. Average of 5 best open-pollinated var Original Krug. Iowealth Hybrid C. Roeschley Yellow Dent. Community composite (Semesan Jr.). Community composite (Semesan Jr.).	95.1 95.0 95.7	92.1 79.9 92.3	3.15 15.89 3.55	22.9 23.2 22.5	47.5 74.0 41.0	63.4 98.8 54.7	93.2 80.8 93.4	85.8 85.3 83.7
30 31 32 33	Community composite (Semesan Jr.) Community composite (Barbak) Community composite (untreated) Angevine Yellow Dent	92.8 88.5 88.4 86.3	89.2 85.0 85.0 84.6	3.88 3.95 3.85 1.97	21.8 22.8 23.7 20.9	47.5 49.6 47.5 48.0	63.4 66.2 63.4 64.1	90.2 86.0 86.0 85.6	83.5 81.1 80.4 80.2
34	Queen of the Field	86.6	84.0	3.00	21.0 21.4	45.0	60.1 92.9	85.0 97.8	78.8 93.7
	Average of division Experimental div		96.7			_	92.9	81.0	93.7
1	aTilia sia Urbaid 761	117 9	115.8	1.28	20.8	89.6	119.6	117.1	117.7
234	*Illinois Hybrid 310 *Illinois Hybrid 960 Illinois Hybrid 546	116.2 120.6 109.0	113.6 107.6 105.3	2.24 10.78 3.39	$21.1 \\ 22.6 \\ 22.6$	79.0 87.0 90.0	105.5 116.2 120.2	114.9 108.8 106.5	112.6 110.7 109.9
5 6 7 7	Illinois Byord 3110. *Illinois Hybrid 3110. *Illinois Hybrid 571. Illinois Hybrid 571. Illinois Hybrid 371. Moews Hybrid 570. Illinois Hybrid 570. Illinois Hybrid 570.	107.4 114.2 111.1 108.0	105.0 109.0 106.6 106.1	2.23 4.55 4.05 1.76	$21.6 \\ 21.3 \\ 22.2 \\ 21.1$	90.2 79.5 83.0 83.5	120.4 106.1 110.8 112.6	106.2 110.2 107.8 107.3	109.8 109.2 108.6 108.6
8	*Illinois Hybrid 936. *Pioneer Hi-Bred 3010.	106.0	105.1 103.9 101.8	2.32 1.98 4.05	21.7 22.7 22.4	86.5 89.0 87.0	115.5 118.8 116.2	106.3 105.1 103.0 109.9	108.6 108.5 106.3
11 12 12	*Moews Hybrid 32. Illinois Hybrid 372. *Moews Hybrid 30. *Moews Hybrid 24.	107.0 109.5 107.8	108.7 104.5 106.7 105.3	4.73 2.34 2.56 2.32	$23.9 \\ 20.5 \\ 22.6 \\ 22.4$	71.0 79.0 74.0 77.0	94.8 105.5 98.8 102.8	105.7 107.9 106.5	106.1 105.7 105.6 105.6
13 14 15 16	*Iowealth Hybrid C. I *U. S. Hybrid 38. *U. S. Hybrid 44. *Indiana Hybrid 642	103.8 101.2 107.0 100.0	98.4 98.1 95.4 96.4	5.20 3.06 10.84 3.60	21.4 22.6 23.7 19.4	88.0 87.0 88.0 83.0	117.5 116.2 117.5 110.8	99.5 99.2 96.5 97.5	104.0 103.5 101.8 100.8
16 17 18 19	Moews Hybrid 30. *Moews Hybrid 24	101.1 97.7 95.3	95.1 96.4 86.1	$5.93 \\ 1.33 \\ 9.65$	20.5 21.1 21.4 22.9	85.0 81.0 90.0	113.5 108.1 120.2	96.2 97.5 87.1	100.5 100.2 95.4 94.9
20 21 22	Pfister Hybrid 4857 (2d generation) Funk Hybrid 225	95.0 99.0	89.9 93.0 94.2 101.9	16.53 2.11 4.85 4.59	22.9 21.6 24.1 21.9	80.0 69.0 65.5 82.3	106.8 92.1 87.4 110.2	90.9 94.1 95.3 103.1	93.6 93.3 105.0
	Average of division	100 8							

TABLE 22.—CAMBRIDGE, NORTH-CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1935

[December,

		Acre	-yield	Damaged corn in	Mois- ture in	Erect	Perfor rating	mance for→	General
Rank	Entry -	Total	Sound	shelled sample	grain at harvest		Lodging resist- ance	Sound yield	- perform ance rating
	Regular divis	ion—en	tries in c	ommercial	producti	on			
		bu.	bu.	perct.	perct.	perct.	perct.	perct.	
2	Illinois Hybrid 360 Illinois Hybrid 364	94.9 94.1	93.4 93.6	1.58	$21.5 \\ 20.3$	96.6 93.2	104.3 100.6	$113.8 \\ 114.0$	$111.4 \\ 110.7$
3	Illinois Hybrid 360A	92.0	91.2	.87	20.6	97.1	104.9	111.1	109.6
4	Illinois Hybrid 366	91.1	90.6	.55	19.9	94.5	102.1	110.4	108.3
5 6	Pfister Hybrid 4857	89.0 87.0	88.1 86.2	1.01	19.8 19.6	93.8 91.4	101.3 98.7	$107.3 \\ 105.0$	105.8 103.4
7	Pfister Hybrid 584 Illinois Hybrid 172 Funk Hybrid 220	85.0	84.3	82	20.3	96.9	104.6	102.7	103.2
8	Funk Hybrid 220	83.3	82.3	1.20	20.6	94.1	101.6	100.2	100.6
9 10	Illinois Hybrid 384. Iowa Hybrid 13.	$\frac{82.2}{86.2}$	$81.4 \\ 83.4$.97 3.25	$19.9 \\ 20.6$	97.0 87.6	104.8 94.6	99.1 101.6	100.5
11		83.2	80.6	3.13	20.9	96.0	103.7	98.2	99.6
12	Iowa Hybrid 942	82.6	81.8	. 97	19.8	90.3	97.5	99.6	99.1
13 14	Iowealth Hybrid B	83.8 79.8	79.6 79.1	5.01 .88	$21.4 \\ 20.7$	96.2 97.1	103.9 104.9	97.0	98.7 98.5
15	M. W. Hybrid 111	81.6	79.8	2.21	20.0	94.5	104.9	96.3 97.2	98.4
16	Funk Hybrid 208	79.2	78.4	1.01	21.1	94.9	102.5	95.5	97.3
16 17	Iowa Hybrid 939. Iowa Hybrid 942. Iowealth Hybrid B. Funk Hybrid 214. M. W. Hybrid 214. Funk Hybrid 208. Funk Hybrid 208. Funk Hybrid 206. Fioneer Hi-Bred 306. Funk Hybrid 215.	79.0	78.2	1.01	21.4	94.9	103.5	95.2	97.3
18	Funk Hybrid 215	83.6 78.3	80.4 77.4	3.83 1.15	$\begin{array}{c} 21.1 \\ 22.0 \end{array}$	86.7 94.3	93.6 101.8	97.9 94.3	96.8 96.2
19	M. W. Hybrid 105. M. W. Hybrid 105. Iowealth Hybrid C. Hulting Yellow Dent.	79.9	76.2	4.63	19.5	93.6	101.1	92.8	94.9
$\frac{20}{21}$	M. W. Hybrid 106.	78.8	76.2	3.30	19.8	93.4	100.9	92.8	94.8
21	Hulting Yellow Dent	81.1 80.7	76.4 78.9	5.80 2.23	$\frac{22.7}{21.3}$	$\frac{92.1}{82.6}$	99.5 89.2	93.1 96.1	94.7 94.4
23	Pioneer Hi-Bred 311A	78.9	74.6	5.45	19.8	96.4	104.1	90.9	94.2
24 25	M. W. Hybrid 104	77.9	76.4	1.93	19.9	89.6	96.8	93.1	94.0
25 26	M. W. Hybrid 138 Pioneer Hi-Bred 311	$76.6 \\ 77.9$	$73 \ 3 \ 72 \ 6$	4.31 6.80	20.3 20.0	94.2 95.9	$101.7 \\ 103.6$	89.3 88.4	92.4 92.2
27	McKeighan Yellow Dent	76.5	74.9	2.09	22.6	87.0	94.0	91.2	91.9
28	Queen of the Field	77.3	76.3	1.29	20.7	81.0	87.5	92.9	91.6
29	Average of 5 best open-pollinated var Original Krug.	$\frac{78.2}{79.1}$	76.7 77.6	1.92	$\begin{array}{c} 21.6\\ 22.1 \end{array}$	79.1 73.8	85.4 79.7	93.5 94.5	91.5 90.8
30	Community composite (Semesan Jr.).	75.7	74.2	1.98	20.7	80.5	86.9	90.4	89.5
31	Roeschley Yellow Dent	77.4	76.0	1.81	20.1	71.1	76.8	92.6	88.7
$\frac{32}{33}$	Community composite (untreated) Community composite (Barbak)	$74.8 \\ 74.9$	$73.3 \\ 73.4$	$2.01 \\ 2.00$	$\frac{21.8}{21.4}$	$79.8 \\ 78.7$	86.2 85.0	$\frac{89.3}{89.4}$	88.5 88.3
	Average of division	81.9	80.0	2.32	20.7	90.8	97.8	87.4	97.5
_	Experimental divi	ision—e	ntries not	t in comme	ercial pro	duction			
1	*U. S. Hybrid 38	95.2	94.5	.74	20.8	94.8	102.4	115.1	111 9
$\frac{2}{3}$	*Illinois Hybrid 960. *Iowa Hybrid 3110.	96.5 95.8	95.1 94.2	1.45	22.0 21.4	92.2 95.2	99.6 102.8	115.8 114.7	$111.8 \\ 111.7$
4	*Illinois Hybrid 936	93.9	93.3	.64	21.4	97.8	102.8	113.6	111.6
5	*Illinois Hybrid 936. *Moews Hybrid 32.	95.0	94.4	. 63	22.0	93.0	100.4	115.0	111.4
6 6	Illinois Hybrid 371. *Iowealth Hybrid C. I.	91.0 93.1	90.5 90.3	.55 3.01	$20.3 \\ 21.6$	96.7 97.2	104.4 105.0	110.2 110.0	$108.8 \\ 108.8$
7	*U.S. Hybrid 44. *Indiana Hybrid 642. *Moews Hybrid 522. Illinois Hybrid 570. *Illinois Hybrid 571.	91.2	· 89.7	1.64	21.6	97.6	105.4	109.3	108.3
8	*Indiana Hybrid 642	89.9	89.1	. 89	19.6	96.4	104.1	108.5	107.4
9 10	*Moews Hybrid 22.	93.0 87.9	89.2 87.5	4.09	21.4 19.9	95.4 97.4	103.0 105.2	$108.6 \\ 106.6$	107.2 106.3
11	*Illinois Hybrid 570	86.7	86.2	.46 .58	22.0	97.4	105.2	105.0	105.1
14		85.1	83.8	1.53	20.7	94.4	101.9	102.1	102.1
13 14	*Illinois Hybrid 574	86.7 83.9	84.4 82.8	2.65 1.31	21.8 22.2	92.2 97.0	99.6 104.8	$102.8 \\ 100.9$	102.0 101.9
15	Illinois Hybrid 754 Illinois Hybrid 39	82.6	81.9	.85	22.0	98.3	104.8	99.8	101.4
16	*Illinois Hybrid 751	81.1	80.1	1.23	21.6	99.2	107.1	97.6	100.0
17 18	*DeKab Hybrid 97. *Indiana Hybrid 620. *Pioneer Hi-Bred 3010.	$\frac{81.9}{81.1}$	$\frac{81.2}{80.2}$.85 1.11	$20.5 \\ 21.5$	95.4 95.8	$103.0 \\ 103.5$	98.9 97.7	99.9 99.2
19	*Pioneer Hi-Bred 3010	87.2	81.1	6.70	21.5	92.0	99.4	98.8	99.2
19	Illinois Hybrid 372	80.4	79.6	1.00	21.0	97.2	105.0	97.0	99.0
20 21	*Moews Hybrid 24	76.6	74.9	2.22	$\frac{22.2}{22.8}$	97.2	105.0	$91.2 \\ 92.7$	94.7 94.0
22	Funk Hybrid 225. Pfister Hybrid 4857 (2d generation)	78.0 75.6	76.1 74.8	$2.44 \\ 1.06$	22.8 19.6	90.5 91.2	97.7 98.5	92.7	94.0
23	*Pioneer Hi-Bred 2218A	74.9	71.3	4.81	21.6	93.4	100.9	86.8	90.3
	Average of division	86.6	85.0	1.85	21.4	95.4	103.1	99.0	103.5
	Average of all entries	83.9	82.1	2.15	21.0	92.7			

TABLE 23.—GRANVILLE, NORTH-CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1935

1936]

		Acre	-yield	Damaged corn in	l Mois- ture in	Erect	Perfor rating	mance for—	General perform
Rank	Entry	Total	Sound	shelled sample	grain at harvest	plants	Lodging resist- ance	Sound yield	ance rating
	Regular divi	sion—en	tries in co	ommercial	producti	on			
1 2 3 3 4 5 6 7	Illinois Hybrid 360 Illinois Hybrid 364 Illinois Hybrid 384 Illinois Hybrid 366 Pfister Hybrid 4857 Illinois Hybrid 360A Pfester Hybrid 360A	114.9 111.1 112.8 112.5 108.3 107.6	<i>bu.</i> 111.8 111.8 110.5 110.3 110.0 106.5 105.3 103.6	<i>perct.</i> 1.76 2.70 .54 2.22 2.22 1.66 2.14 2.81	$\begin{array}{c} perct.\\ 20.2\\ 19.6\\ 19.2\\ 19.2\\ 18.6\\ 18.6\\ 19.6\\ 19.6\\ 19.6 \end{array}$	perct. 91.2 89.8 92.0 92.6 89.5 88.9 91.2 88.2	<i>perct</i> . 104.9 103.3 105.9 106.6 103.0 102.3 104.9 101.5	<i>perct.</i> 110.9 110.9 109.6 109.4 109.1 105.7 104.5 102.8	109.4109.0108.7108.7107.6104.9104.6102.5
8 9 10 11 12 13 14 15	Pfister Hybrid 584. M. W. Hybrid 105 Iowa Hybrid 339. Iowa Hybrid 13. Funk Hybrid 220. Funk Hybrid 215. M. W. Hybrid 106. M. W. Hybrid 104. Funk Hybrid 208.	109.7 101.1 100.4 101.9 101.1	102.4 98.8 102.0 100.4 99.2 99.1 98.0 98.7	$\begin{array}{r} 2.66 \\ 4.26 \\ 7.02 \\ .69 \\ 1.20 \\ 2.75 \\ 3.07 \\ 1.30 \end{array}$	17.9 19.2 19.6 19.9 19.1 18.6 18.7 19.6 17.9	89.4 94.4 85.8 89.2 91.0 90.5 90.4 88.2	102.9 108.6 98.7 102.6 104.7 104.1 104.0 101.5	101.6 98.0 101.2 99.6 98.4 98.3 97.2 97.9	101.9 100.7 100.6 100.4 100.0 99.8 98.9 98.9 98.8
16 17 18 19 20 21 22 22 23 24	Funk Hybrid 208. M. W. Hybrid 111 Iowealth Hybrid B. Pioneer Hi-Bred 311A. Funk Hybrid 206. Pioneer Hi-Bred 306. Funk Hybrid 214. Iowa Hybrid 214. Iowa Hybrid 422. Iowealth Hybrid C. Hulting Yellow Dent. M. W. Hybrid 138. M. W. Hybrid 138.	105.6 96.9 107.3 98.0	$\begin{array}{r} 98.7 \\ 95.9 \\ 93.6 \\ 95.6 \\ 100.6 \\ 96.7 \\ 93.9 \\ 93.3 \\ 96.9 \end{array}$	2.66 3.52 11.36 1.34 6.24 1.33 9.01 3.42 3.77	$17.9 \\ 20.3 \\ 18.0 \\ 20.9 \\ 18.7 \\ 20.0 \\ 18.6 \\ 20.3 \\ 19.6 \\ 17.0 \\ 19.6 \\ 17.0 \\ 18.0 \\ 19.6 \\ 19.6 \\ 19.6 \\ 10.0 \\ $	87.1 92.8 94.0 88.1 74.1 83.8 90.0 91.4 81.9	$100.2 \\ 106.8 \\ 108.2 \\ 101.4 \\ 85.3 \\ 96.4 \\ 103.6 \\ 105.2 \\ 94.2$	97.9 95.1 92.9 94.8 99.8 95.9 93.2 92.6 96.1	98.5 98.0 96.7 96.5 96.2 96.0 95.8 95.8 95.8
25 26 27 28 29 30	Nickeignan fellow Dent. Average of 5 best open-pollinated var Roeschley Yellow Dent. Original Krug. Community composite (Semesan Jr.). Mummert-Hahn Dent.	98.7 91.8 98.7 99.7 98.0 95.9 96.6	$\begin{array}{r} 91.7\\ 95.2\\ 86.3\\ 95.1\\ 94.7\\ 95.6\\ 92.2\\ 92.9\end{array}$	2.65 3.55 5.99 3.65 5.02 2.45 3.86 3.83	18.621.117.920.520.220.920.020.020.9	$\begin{array}{r} 90.4 \\ 75.7 \\ 91.4 \\ 68.2 \\ 63.0 \\ 59.0 \\ 65.6 \\ 61.2 \end{array}$	$104.0 \\ 87.1 \\ 105.2 \\ 78.4 \\ 72.5 \\ 67.9 \\ 75.5 \\ 70.4$	91.0 94.4 85.6 94.3 93.9 94.8 91.5 92.2	94.3 92.6 90.5 90.3 88.6 88.1 87.5 86.8
31 32 33	Community composite (untreated) Queen of the Field. Community composite (Barbak) Average of division	90.0 84.5 90.0	86.5 82.9 86.5 98.2	$3.89 \\ 1.89 \\ 3.89 \\ 3.44$	20.0 18.7 20.0 18.9	66.1 72.4 53.9 83.5	$76.1 \\ 83.3 \\ 68.2 \\ 93.2$	85.8 82.2 85.8 97.4	83.4 82.5 81.4 97.2
	Experimental div						00.2		01.2
$ \begin{array}{r} 2 \\ 3 \\ 4 \\ 5 \\ 6 \\ 7 \\ 7 \\ 8 \\ 9 \\ 10 \\ 11 \\ 12 \\ 13 \\ 14 \\ 15 \\ 16 \\ \end{array} $	 *Illinois Hybrid 960. *Moews Hybrid 32. *U. S. Hybrid 33. *Iowealth Hybrid C. I.1. Illinois Hybrid 570. *Moews Hybrid 22. *Illinois Hybrid 751. *Illinois Hybrid 371. *Illinois Hybrid 372. *Indiana Hybrid 642. *Moews Hybrid 24. Illinoia Hybrid 620. *Pioneer Hi-Bred 3010. *Ilmiana Hybrid 620. *Pioneer Hybrid 71. *DeKalb Hybrid 971. *DeKalb Hybrid 971. *Pioneer Hi-Bred 2218A. *Pister Hybrid 3857 (2d generation). 	$\begin{array}{c} 123.9\\ 119.7\\ 116.3\\ 114.5\\ 109.4\\ 113.9\\ 113.5\\ 109.4\\ 111.4\\ 112.1\\ 104.5\\ 107.3\\ 105.2\\ 104.5\\ 105.2\\ 104.5\\ 105.2\\ 104.5\\ 102.8\\ 100.4\\ 103.2\\ 94.2\\ 93.8\\ 90.0 \end{array}$	$\begin{array}{c} 119.8\\ 117.6\\ 113.1\\ 110.5\\ 111.4\\ 111.5\\ 107.4\\ 107.1\\ 109.9\\ 108.3\\ 108.3\\ 108.3\\ 108.4\\ 105.6\\ 100.6\\ 99.1\\ 103.6\\ 100.6\\ 99.1\\ 103.6\\ 100.6\\ 99.1\\ 103.6\\ 100.6\\ 99.1\\ 103.6\\ 100.6\\ 99.1\\ 103.6\\ 100.5\\ 100.5\\ 92.2\\ 83.1\\ 87.6\\ \end{array}$	$\begin{array}{c} 3.31\\ 1.75\\ 2.75\\ 2.78\\ 3.49\\ 2.19\\ 1.76\\ 1.83\\ 2.10\\ 1.35\\ 2.78\\ 3.39\\ 2.05\\ 2.42\\ 2.09\\ 2.01\\ 1.52\\ 3.73\\ 3.60\\ 3.49\\ 1.45\\ 1.28\\ 2.12\\ 11.41\\ 2.67\\ \end{array}$	$\begin{array}{c} 20.0\\ 20.2\\ 19.6\\ 22.8\\ 19.6\\ 21.1\\ 19.9\\ 20.0\\ 20.0\\ 19.6\\ 20.3\\ 19.2\\ 19.1\\ 19.1\\ 19.1\\ 19.1\\ 19.1\\ 20.0\\ 20.9\\ 21.0\\ 20.9\\ 21.0\\ 20.9\\ 21.0\\ 20.9\\ 21.0\\ 20.5\\ 19.1\\ \end{array}$	$\begin{array}{c} 88.6\\ 88.4\\ 93.6\\ 99.0\\ 92.1\\ 89.0\\ 95.4\\ 96.2\\ 88.0\\ 90.6\\ 90.2\\ 98.0\\ 90.6\\ 90.2\\ 98.0\\ 90.6\\ 90.2\\ 98.0\\ 90.6\\ 90.2\\ 98.0\\ 91.0\\ 95.0\\ 91.0\\ 95.0\\ 91.0\\ 95.0\\ 91.0\\ 95.0\\ 91.0\\ 95.0\\ 97.8\\ 89.2\\ 94.0\\ 97.8\\ 97.8\\ 90.0\\ 97.8\\ 90.0\\ 97.4\\ 0\end{array}$	102.0 101.7 107.7 113.9 106.0 102.4 109.8 110.3 104.3 103.8 102.1 103.8 102.1 103.8 102.1 103.8 102.1 109.3 112.8 109.3 112.8 104.7 109.3 112.5 104.7 109.3 112.5 103.6 85.2	$\begin{array}{c} 118.8\\ 116.7\\ 112.2\\ 109.6\\ 110.5\\ 110.6\\ 110.6\\ 110.6\\ 106.2\\ 109.0\\ 107.4\\ 107.4\\ 107.4\\ 107.4\\ 102.6\\ 104.8\\ 104.8\\ 102.8\\ 99.8\\ 99.8\\ 99.8\\ 99.8\\ 99.8\\ 99.8\\ 99.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 99.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 99.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 99.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 99.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 99.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 99.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 99.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 99.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 99.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 99.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 90.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 90.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 90.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 90.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 90.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 90.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 90.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 90.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 90.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 90.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 90.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 90.7\\ 91.5\\ 82.4\\ 86.9\\ 100.9\\ 90.7\\ 91.5\\ 82.4\\ 80.8\\ 90.8\\ 80.8\\ 90.8\\ $	$\begin{array}{c} 114.6\\ 113.0\\ 111.1\\ 110.7\\ 109.4\\ 107.3\\ 107.3\\ 107.3\\ 107.3\\ 107.3\\ 107.3\\ 106.5\\ 2104.1\\ 106.5\\ 2104.1\\ 103.7\\ 103.7\\ 103.7\\ 103.3\\ 102.2\\ 103.3\\ 102.2\\ 103.7\\ 103.5\\ 87.7\\ 86.5\\ 87.7\\ 86.5\\ 99.2\\ 99.$
	Average of division		104.4	2.61	20.0	91.7	105.4	103.5	99.9
	Average of all entries	104.0	100.8	3.08	19.3	86.9			••••

TABLE 24.—DWIGHT, North-Central Illinois: Performance of Corn Varieties and Hybrids, 1935

BULLETIN No. 427

[December,

		Acre	-yield	Damaged corn in		Erect	Performance rating for—		General – perform-
Rank	Entry -	Total	Sound	shelled sample	grain at harvest	plants	Lodging resist- ance	Sound yield	ance rating
	Regular divi	sion—en	tries in c	ommercia	l producti	on			
1	Illinois Hybrid 384	bu. 86.2	bu. 85.9	perct.	perct. 20.7	perct. 87.9	perct. 133.3	perct. 104.4	111.6
2	Illinois Hybrid 360A	99.6	97.1	2.51	20.8	53.0	80.4	118.0	108.6
2	Funk Hybrid 220L	86.7	86.2	.58	21.2	79.3	120.3	104.7	108.6
3	Illinois Hybrid 360	94.3	91.5	2.97	20.8	58.8	89.2	111.2	105.7
4	Pfister Hybrid 4857	94.3	93.8	.53	19.8	48.0	72.8	114.0	103.7
5	Pioneer Hi-Bred 307A	82.7	80.5	2.66	20.5	79.3	120.3	97.8	103.4
6	Iowa Hybrid 13	88.6	85.8	3.16	20.8	60.7	92.0	104.3	101.2
6	Illinois Hybrid 172	87.8	87.0	.91	20.1	57.9	87.8	105.7	101.2
7	Pioneer Hi-Bred 311	81.0	78.3	3.33	18.4	77.9	118.1	95.1	100.9
8	Illinois Hybrid 543	86.1	85.8	.35	22.3	56.5	85.7	104.3	99.7
9	Pfister Hybrid 584	92.4	90.1	2.49	20.4	46.0	69.8	109.5	99.6
10	Funk Hybrid 220	79.6	78.2	1.76	22.5	72.9	110.6	95.0	98.9
11	Pioneer Hi-Bred 306	87.4	86.3	1.26	19.7	47.0	71.3	104.9	96.5
12	Pioneer Hi-Bred 311A	81.3	78.5	3.44	18.0	53.3	80.8	95.4	91.8
13	McKeighan Yellow Dent	75.1	73.9	1.60	23.8	61.4	93.1	89.8	90.6
14	Original Krug	81.8	80.2	1.96	22.3	45.7	69.3	97.4	90.4
15	Funk Hybrid 206	72.8	71.5	1.79	23.7	62.9	95.4	86.9	89.0
16	Doubet Yellow Dent	75.6	74 2	1.85	21.6	55.7	84.5	90.2 91.1	88.8 87.8
•	Average of 5 best open-pollinated var	76.2	75.0	1.57	22.9	51.3	77.7	91.1	87.7
17	Funk Hybrid 208	76.0	75.2	1.05	$\frac{22.1}{23.5}$	50.5	76.6	91.4 89.8	86.3
18 19	Mountjoy Utility Dent	74.6	$73.9 \\ 72.7$.94	23.5	50.0 43.5	75.8 66.0	88.3	82.7
20	Station Yellow Dent.	73.7	72.7	$1.36 \\ 2.01$	23.1		51.6	89.3 89.1	79.7
20 21	Herndon Yellow Dent.	74.8 70.7	73.3 69.7	1.41	22.8 22.5	34.0 42.0	63.7	89.1	79.5
21	Hoblit Golden Eagle.	65.8	64.2	2.43	22.5	42.0	66.1	78.0	79.5
22	Stiegelmeier Improved Dent Sommer Yellow Dent	69.9	04.2 66.5	2.43	24.5	36.0	54.6	80.8	74.3
60									
	Average of division	81.6	80.0	1.96	21.7	56.2	85.2	97.2	94.2

TABLE 25.—ADAIR, CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND Hybrids, 1935

TABLE 25.—Concluded

	Experimental division-entries not in commercial production													
1	*U. S. Hybrid 44	93.6	93.1	.53	21.9	75.0	113.7	113.1	113.3					
2	Illinois Hybrid 546	90.4	89.4	1.11	22.8	82.6	125.3	108.6	112.8					
3	*Illinois Hybrid 960	99.3	95.9	3.42	23.1	66.3	100.5	116.5	112.5					
4	*Illinois Hybrid 729	88.1	86.8	1.48	20.3	86.7	131.5	105.5	112.0					
5	*Illinois Hybrid 737	86.8	85.5	1.50	22.3	88.8	134.7	103.9	111.6					
6	*U. S. Hybrid 38	87.9	87.2	. 80	21.7	83.3	126.3	106.0	111.1					
7	*U. S. Hybrid 33	89.6	88.4	1.34	21.7	78.8	119.5	107.4	110.4					
8	*Iowa Hybrid 3110	90.7	90.1	.66	22.3	74.3	112.7	109.5	110.3					
8	*Illinois Hybrid 371	91.4	89.9	1.64	21.0	75.0	113.7	109.2	110.3					
9	Illinois Hybrid 710	93.3	91.3	2.14	24.8	70.0	106.2	110.9	109.7					
10	*Illinois Hybrid 793	87.9	86.4	1.71	25.3	81.3	123.3	105.0	109.6					
11	*Indiana Hybrid 634	85.1	84.9	.24	20.8	83.0	125.9	103.2	108.9					
12	Illinois Hybrid 754	85.7	85.2	.58	22.5	82.1	124.5	103 5	108.8					
13	*Pioneer Hi-Bred 2088	86.6	85.0	2.07	19.7	80.0	121.3	103.3	107.8					
14	*U. S. Hybrid 57	86.8	85.9	1.04	22.8	76.7	116.3	104.4	107.4					
14	*Illinois Hybrid 775	79.9	78.7	.25	20.4	91.7	139.1	96.8	107.4					
15	Illinois Hybrid 760	90.4	88.9	1.66	21.4	69.3	105.1	108.0	107.3					
16	*Pioneer Hi-Bred 2111	86.4	83.6	3.24	22.3	81.3	123.3	101.6	107.0					
17	*Illinois Hybrid 372	81.4	80.1	1.60	21.7	88.8	134.7	97_3	106.7					
18	*Illinois Hybrid 934	83.0	82.0	1.20	22.5	83.3	126.3	99.6	106.3					
18	Illinois Hybrid 936	84.9	83.8	1.30	22.3	78.9	119.6	101.8	106.3					
19	*Indiana Hybrid 631	81.9	81.1	.98	24.0	83.3	126.3	98.5	105.5					
20	*Indiana Hybrid 666	89.8	86.4	3.79	21.9	71.0	106.6	105.0	105.4					
21	Funk Hybrid 207.	86.1	84.4	1.97	24.5	74.3	112.7	102.6	105.1					
22	*Illinois Hybrid 39.	79.7	79.3	. 50	23.5	86.3	130.9	96.4	105.0					
22	Indiana Hybrid 643	89.0	88.5	.56	20.8	64.3	97.5	107.5	105.0					
23 24	*Illinois Hybrid 46	81.4	79.6	$\frac{2.21}{1.03}$	19.5	83.3	126.3	96.7	104.1					
24	*Pioneer Hi-Bred 2011	87.2	86 3	2.02	$\frac{21.1}{24.3}$	$65.7 \\ 86.4$	99.6 131.0	104.9 94.4	103.6					
24	Indiana Hybrid 632	79.3 90.9	77.7 88.5	2.64	24.3	57.5	87.2		103.6					
26	*Illinois Hybrid 579	85.3	84.0	1.52	24.5	67.5	102.4	$107.5 \\ 102.1$	102.4 102.2					
27	*Illinois Hybrid 764 *Illinois Hybrid 574	84.9	82.4	2.94	22.5	70.0	102.4	102.1	102.2					
28	Illinois Hybrid 391	86.4	85.2	1.39	24.5	59.3	89.9	100.1	100.1					
28	*Illinois Hybrid 765.	80.8	80.0	.99	21.1	71.7	108.7	97.2	100.1					
29		86.3	83.9	2.78	24.5	61.3	93.0	101.9	99.7					
30	*Iowa Hybrid 3045 *Ohio Hybrid 6	80.6	77.7	3.60	20.7	75.0	113.7	94.4	99.2					
31	*Iowa Hybrid 3065	91.2	89.3	2.08	20.4	46.7	70.8	108.5	99.1					
32	*Illinois Hybrid 753.	86.3	85.4	1.04	24.8	53.3	80.8	103.8	98.1					
33	*Ohio Hybrid 7.	87.0	83.7	3.79	23.5	56.7	86.0	101.7	97.8					
34	*Pfister Hybrid 3258	88.7	86.4	2.59	23.0	50.0	75.8	105.0	97.7					
35	*Illinois Hybrid 539.	78.6	76.6	2.54	24.1	72.5	109.9	93.1	97.3					
36	*Pioneer Hi-Bred 2215A	79.7	73.0	8.41	20.7	80.0	121.3	88.7	96.9					
37	*Illinois Hybrid 54.	76.3	75.0	1.70	24.3	73.8	111.9	91.1	96.3					
38	*Indiana Hybrid 819	81.8	79.9	2.32	23.0	58.3	88.4	97.1	94.9					
39	*Indiana Hybrid 651	80.0	79.3	.88	23.0 22.5	56.7	86.0	96.4	93.8					
40	*Illinois Hybrid 508	71.5	70.3	1.68	21.9	76.7	116.3	85.4	93.1					
41	*Indiana Hybrid 650	75.4	72.9	3.32	26.3	68.8	104.3	88.6	92.5					
42	*Ohio Hybrid 8.	84.6	83.6	1.18	22.3	37.5	56.9	101.6	90.4					
43	Funk Hybrid 225	80.4	79.5	1.12	23.1	44.0	66.7	96.6	89.1					
44	*Indiana Hybrid 820	74.1	71.6	3.37	26.9	62.5	94.8	87.0	89.0					
	Average of division	85.1	83.5	1.88	22.6	71.8	108.9	101.5	103.4					
	Average of all entries	83.9	82 3	1.91	22.3	66.6								

[December,

		Acre	-yield	Damaged		Ennet	Perfor rating		Genera
Rank	Entry	Total	Sound	corn in shelled sample	ture in grain at harvest	Erect plants	Lodging resist- ance	Sound yield	perform ance rating
	Regular divis	sion—en	tries in co	ommercial	producti	on			
		bu.	bu.	perct.	perct.	perct. 83.0	percl.	perct.	
$\frac{1}{2}$	Illinois Hybrid 360 Illinois Hybrid 360A	80.4 79.2	80.0 78.4	.50 1.01	21.1 20.5	83.0 83.0	$111.3 \\ 111.3$	111.0 108.7	111.1 109.4
ź	Pfister Hybrid 4857	77.7	77.3	.51	20.3	77.5	105.9	107.2	106.4
4	Pfister Hybrid 584	78.1	77.7	.51	20.2	74.5	100.0	107.8	105.9
5	Pioneer Hi-Bred 311	74.0	73.3	. 95	18.0	84.5	113.3	101.7	104.6
6 7	Illinois Hybrid 543	75.3 71.1	74.1 70.5	1.59	21.9 19.8	81.0 87.5	108.6 117.3	$102.8 \\ 97.8$	104.3 102.7
8	Illinois Hybrid 384. Illinois Hybrid 172.	72.3	70.6	.84 2.35	19.7	80.0	107.2	97.9	100.2
<u>9</u>	Funk Hybrid 214 Pioneer Hi-Bred 307A Pioneer Hi-Bred 306	70.0	69.2	1.14	21.9	80.5	107.9	96.0	99.0
10	Pioneer Hi-Bred 307A	73.4	72.5	1.23	20.5	70.0	93.8	100.6	98.9
$\frac{11}{12}$	Funk Hybrid 220.	73.9 68.6	$71.1 \\ 68.4$	3.79	$ \begin{array}{r} 19.2 \\ 21.1 \end{array} $	69.0 76.5	92.5 102.5	98.6 94.9	97.1 96.8
13	Pioneer Hi-Bred 311A	68.5	65.6	4.23	19.6	82.0	102.9	91.0	95.7
14	Funk Hybrid 220L	66.7	65.9	1.20	19.6	80.5	107.9	91.4	95.5
15	Funk Hybrid 206	67.3	66.4	1.34	22.3	77.5	103.9	92.1	95.1
16 17	Iowa Hybrid 13.	76.9 63.0	$72.2 \\ 62.5$	6.11	$21.1 \\ 20.6$	54.5 74.0	73.1 99.2	100.1 86.7	93.4
18	Funk Hybrid 208. McKeighan Yellow Dent	67.0	64.7	.79 3.43	20.6	64.5	86.5	89.7	89.8 88.9
19	Station Yellow Dent	66.7	65.3	2.10	22.5	58.0	77.7	90.6	87.4
20	Original Krug. Average of 5 best open-pollinated var	68.1	66.8	1.91	21.3	50.5	67.7	92.6	86.4
21	Average of 5 best open-pollinated var	66.3 66.1	64.9	2.11	$\frac{22.4}{22.5}$	55.7 48.0	74.7	90.0 91.0	86.2 84.3
22	Warsaw Krug Tiemann Yellow Dent	63.7	65.6 62.0	.76 2.67	22.5	48.0 57.5	64.3 77.1	86.0	83.8
23	Ropp Yellow Dent	67.6	64.2	5.03	22.7	47.0	63.0	89.0	82.5
23 24 25	Ropp Yellow Dent Mountjoy Utility Dent Stiegelmeier Improved Dent	64.7	63.7	1.55	23.8	45.5	61.0	88.3	81.5
25		61.4	57.1	7.00	24.7	39.5	52.9	79.2	72.6
_	Average of division	70.5	69.0	2.13	21.2	69.0	92.6	95.7	94.9
	Experimental div	ision—e	ntries not	in comm	ercial pro	duction			
1	*U. S. Hybrid 44	87.7	86.3	1.60	22.0	85.0	113.9	119.7	118.3
2 3	*Illinois Hybrid 960	$\frac{86.4}{82.3}$	84.2 81.6	2.55	20.8 20.3	$\frac{75.0}{82.0}$	100.5 110.0	116.8	$112.7 \\ 112.4$
4	*Iowa Hybrid 3110 *Illinois Hybrid 729	79.4	78.4	1.26	20.3	91.0	122.0	$113.2 \\ 108.7$	112.4
5	•Illinois Hybrid 729. •Illinois Hybrid 793. •U. S. Hybrid 57.	84.8	82.6	2.59	20.3	76.0	101.9	114.6	111.4
6	*U. S. Hybrid 57	81.1	78.2	3.58	21.2	85.0	113.9	108.5	109.9
7	*Proneer Hi-Bred 2088	78.0	76.8	1.54	19.9	89.0	119.3	106.5	109.7
8 8	*U. S. Hybrid 38 *Illinois Hybrid 775	79.4 78.5	$77.7 \\ 76.5$	$2.14 \\ 2.55$	$22.3 \\ 21.6$	$\frac{85.2}{89.0}$	114.2 119.3	$107.8 \\ 106.1$	109.4
ğ	*Illinois Hybrid 775. *Illinois Hybrid 574.	81.5	80.2	1.60	21.9	71.0	95.2	111.2	107.2
10	*Illinoia Hybrid 034	76.3	74.9	1.83	22.1	87.0	116.6	103.9	107.1
11	*Indiana Hybrid 631. *Illinois Hybrid 753. *Illinois Hybrid 46.	78.4	75.7	3.44	19.8	84.0	112.6	105.0	106.9
12 13	*Illinois Hybrid 46	$\frac{81.1}{75.9}$	$79.8 \\ 74.0$	1.60 2.50	24.3 19.5	$\frac{71.0}{87.0}$	95.2 116.6	$110.7 \\ 102.6$	106.8 106.1
14	Illinois Hybrid 936	76.2	75.4	1.05	21.1	81.0	108.6	104.6	105.6
15	*Pioneer Hi-Bred 2111	76.2	75.4	1.05	20.1	78.0	104.6	104.6	104.6
16	*Illinois Hybrid 737	73.6	72.7	1.22	20.4	85.0	113.9	100.8	104.1
17 18	*Ohio Hybrid 8 Illinois Hybrid 546	$75.2 \\ 72.7$	73.6 70.7	$2.12 \\ 2.75$	$20.8 \\ 22.7$	80.0 88.5	$107.2 \\ 118.6$	102.1 98.1	103.4 103.2
19	*Photos Hubrid 2259	79.3	78.5	1.01	21.7	64.0	85.8	108.9	103.1
19	Indiana Hybrid 634. Indiana Hybrid 632. Funk Hybrid 207.	75.4	73.7	2.25	21.7	79.0	105.9	102.2	103.1
19	Indiana Hybrid 632.	75.4	71.6	5.04	21.3	85.5	114.6	99.3	103.1
19 19	*Pioneer Hi-Bred 2011.	$76.9 \\ 74.2$	$75.3 \\ 70.7$	2.08 4.72	$21.9 \\ 21.7$	74.0 88.0	99.2 118.0	104.4 98.1	103.1
20	Indiana Hybrid 643	77.9	76.0	2.44	21.7	70.5	94.5	105.4	103.1
21	Illinois Hybrid 371. Illinois Hybrid 754. Illinois Hybrid 710.	72.7	71.8	1.24	20.8	83.0	111.3	99.6	102.5
22	Illinois Hybrid 754.	72.2	71.4	1.11	21.7	83.5	111.9	99.0	102.2
44	Illinois Hybrid 710	76.5	74.4	2.75	24.8	73.5	98.5	103.2	102.0
22 23		79.7	75.4	5.40 1.51	22.3 22.3	68.0 76.0	91.2 101.9	104.6 99.3	101.3
24	~10wa Hybrid 3045	79 7							
24 25 26	~10wa Hybrid 3045	72.7 72.8	71.6 70.2		21.7		107.2		
24 25 26	*U. S. Hybrid 3043. *V. S. Hybrid 33. Pioneer Hi-Bred 2215A. Indiana Hybrid 819.	$72.8 \\ 71.5$	70.2 68.4	3.57 4.34	$21.7 \\ 24.0$	80.0 84.0	$107.2 \\ 112.6$	97.4 94.9	99.9 99.3
24 25 26 27 28	*U. S. Hybrid 33. *Pioneer Hi-Bred 2215A. *Indiana Hybrid 819. *Illinois Hybrid 579.	72.8 71.5 79.4	70.2 68.4 75.5	3.57 4.34 4.91	$21.7 \\ 24.0 \\ 23.5$	80.0 84.0 61.0	107.2 112.6 81.8	97.4 94.9 104.7	99.9 99.3 99.0
24 25 26	*U. S. Hybrid 3043. *V. S. Hybrid 33. Pioneer Hi-Bred 2215A. Indiana Hybrid 819.	$72.8 \\ 71.5$	70.2 68.4	3.57 4.34	$21.7 \\ 24.0$	80.0 84.0	$107.2 \\ 112.6$	97.4 94.9	99. 99.

TABLE 26.—BELLFLOWER, CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1935

Experimental division—concluded											
31	Illinois Hybrid 760	75.2	71.4	5.05	22.5	72.0	96.5	99.0	98.4		
32	*Illinois Hybrid 508	70.5	67.8	3.83	23.8	83.0	111.3	94.0	98.3		
33	*Indiana Hybrid 820	76.6	74.4	2.87	24.0	62.0	83.1	103.2	98.2		
34	Illinois Hybrid 391	76.6	74.1	3.26	22.5	62.5	83.8	102.8	98.1		
34	*Illinois Hybrid 765	70.7	69.8	1.27	22.1	76.0	101.9	96.8	98.1		
35	*Illinois Hybrid 764	76.3	73.8	3.28	22.8	63.0	84.5	102.4	97.9		
36	*Illinois Hybrid 54	70.9	69.4	2.12	22.5	75.0	100.5	96.3	97.4		
37	*Illinois Hybrid 39	67.6	67.0	.89	22.2	82.0	109.9	92.9	97.2		
38	Funk Hybrid 225.	74.7	72.8	2.54	23.0	62.5	83.8	101.0	96.7		
38	Stiegelmeier Hybrid 2	70.5	69.8	.99	22.3	68.0	96.2	96.8	96.7		
39	*Ohio Hybrid 7	71.5	68.9	3.64	22.1	70.0	93.8	95.6	95.2		
0	*Indiana Hybrid 666	68.9	64.5	6.39	22.8	81.0	108.6	89.5	94.3		
1	*Ohio Hybrid 6	64.4	63.0	2.17	19.2	75.0	100.5	87.4	90.7		
2	*Illinois Hybrid 539	64.1	62.0	3.28	21.6	64.0	85.8	86.0	86.0		
	Average of division	75.5	73.6	2.52	21.7	77.4	103.9	102.1	102.6		
	Average of all entries	73.8	72.1	2.30	21.6	74.6					

TABLE 26.—Concluded

*Average of 5 plots instead of 10.

TABLE 27.—ARMSTRONG, CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1935

		Acre	-yield	Damage corn in		Erect	Perfor rating		General - perform-
Rank	Entry	Total	Sound	shelled	grain at	plants	Lodging resist- ance	Sound yield	ance rating
	Regular divi	sion—en	tries in c	ommercia	l producti	on			
1	Illinois Hybrid 360	bu. 104.7	bu. 104.2	perct.	perct. 19.8	perct. 76.5	perct. 133.0	perct. 111.0	116.5
2	Illinois Hybrid 384		96.7	1.23	20.2	87.0	151.3	103.0	115.1
3	Illinois Hybrid 360A		103.6	77	20.9	64.5	112.2	110.3	110.8
45	Illinois Hybrid 172.	96.0	94.7	1.35	19.0	80.5	140.0	100.9	110.7
5 6	Pfister Hybrid 4857	$96.8 \\ 97.2$	95.1 95.2	$1.76 \\ 2.06$	20.8 20.2	$68.5 \\ 63.5$	119.1 110.4	101.3	105.8
7	Pfister Hybrid 584 Pioneer Hi-Bred 311A	94.7	95.2	3.80	19.5	67.5	117.4	101.4 97.0	$103.7 \\ 102.1$
8	Pioneer Hi-Bred 311	93.5	91.1	2.14	19.0	65.0	117.4	97.4	102.1
9	Illinois Hybrid 543.	93.5	92.2	1.39	23.0	62.0	107.8	98.2	100.6
10	Pioneer Hi-Bred 306	97.7	94.2	3.58	20.8	56.5	98.3	100.3	99.8
iĭ	Funk Hybrid 220.	93.9	92.3	1.70	21.8	57.0	99.1	98.3	98.5
12	Funk Hybrid 206	89.7	88.0	1.90	22.0	63.0	109.6	93.7	97.7
13	Funk Hybrid 220L.	92.5	89.4	3.35	22.9	59.5	103.5	95.2	97.3
14	Iowa Hybrid 13	96.1	91.4	4.89	21.0	54.5	94.8	97.3	96.7
15	Pioneer Hi-Bred 307A	96.3	93.8	2.60	20.9	46.0	80.0	99.9	94.9
16	Funk Hybrid 208	88.6	85.5	3.50	22.8	57.0	99.1	91.1	93.1
17	McKeighan Yellow Dent	86.3	84.0	2.67	26.2	45.0	78.3	89.5	86.7
17	Illinois Hybrid 391	94.2	87.6	7.01	26.0	38.5	67.0	93.3	86.7
18	Station Yellow Dent	88.4	85.6	3.17	23.4	39.0	67.8	91.2	85.4
	Average of 5 best open-pollinated var	87.6	85.6	2.28	23.7	35.9	62.5	91.2	84.0
19	Original Krug	88.3	87.4	1.02	21.8	32.0	55.7	93.1	83.8
19	Heckerson Yellow Dent	87.9	86.7	1.37	23.7	33.5	58.3	92.3	83.8
20 21	Community Composite.	85.8	82.7	3.61	23.2 23.2	37.5	$\frac{65.2}{52.2}$	$\frac{88.1}{89.9}$	$\frac{82.4}{80.5}$
21	Mountjoy Utility Dent Dewey Yellow Dent	$\frac{87.1}{79.4}$	84.4 77.8	$\frac{3.10}{2.02}$	23.2 23.0	$\frac{30.0}{38.0}$	52.2 66.1	89.9 82.9	80.5 78.7
23	Stiegelmeier Yellow Dent	82.6	78.2	2.02	$\frac{23.0}{27.0}$	28.5	49.6	83.3	74.9
24	Sommer Yellow Dent	82.6	77.3	6.42	27.0	20.0	34.8	82.3	70.4
					23.2				
	Average of division	92.2	89.6	2.82	22.2	52.7	91.7	95.5	94.5

(Table is concluded on next page)

[December,

D 1	P-4	Acre	-yield	Damaged		D	Perfor rating	mance for—	General
Rank	Entry	Total	Sound		ture in grain at harvest	Erect plants	Lodging resist- ance	Sound yield	ance rating
	Experimental d	ivision—e	entries not	in comm	ercial pro	duction			*
	attite de Trabala 700	bu.	bu.	perct.	perct.	perct.	percl.	perct.	110.0
1 2	*Illinois Hybrid 729 *Indiana Hybrid 651		· 108.0 106.5	1.19	20.2 19.9	73.0 74.0	127.0 128.7	115.0 113.4	118.0
3	*Illinois Hybrid 960		107.2	1.56	21.1	72.0	125.2	113.4	$117.2 \\ 117.0$
4	*Indiana Hybrid 650.		102.3	2.48	23.4	79.0	137.4	108.9	116.0
5	*Illinois Hybrid 934		97.8	2.88	21.6	82.0	142.6	104.2	113.8
6	*U. S. Hybrid 44		105.4	1.31	20.8	68.0	118.3	112.2	113.7
Ť	*Illinois Hybrid 372	. 97.0	96.2	.82	19.3	84.0	146.1	102.4	113.3
8	*Illinois Hybrid 793		102.0	2.86	22.6	70.0	121.8	108.6	111.9
9	*Illinois Hybrid 775		93.2	.85	20.8	84.0	146.1	99.3	111.0
10	*Illinois Hybrid 371		98.7	. 80	20.7	73.0	127.0	105.1	110.6
11	*Pioneer Hi-Bred 2111		101.0	4.72	20.2	66.0	114.8	107.6	109.4
12	*U. S. Hybrid 57		104.1	1.51	21.8	60.0	104.3	110.9	109.3
13 14	Indiana Hybrid 632		95.1	1.55	20.5	75.5	131.3	101.3	108.8
14	*U. S. Hybrid 33 *Pioneer Hi-Bred 2088		95.6 100.3	3.14	21.6 19.1	$72.0 \\ 63.0$	125.2 109.6	$101.8 \\ 106.8$	107.7 107.5
15	*Illinois Hybrid 46.		90.4	2.90	19.1	81.0	140.9	96.3	107.5
15	*Pioneer Hi-Bred 2011.		96.4	2.53	21.5	70.0	121.7	102.7	107.5
15	Illinois Hybrid 546		98.1	2.97	22.8	67.0	116.5	104.5	107.5
16	*U. S. Hybrid 38.		92.9	1.59	21.8	73.0	127.0	98.9	105.9
17	*lowa Hybrid 3065		98.4	1.70	18.7	62.0	107.8	104.8	105.6
18	*Pioneer Hi-Bred 2215A		94.5	3.67	20.6	68.0	118.3	100.6	105.0
19	*Illinois Hybrid 508		99.1	2.17	23.2	58.0	100.9	105.5	104.4
20	*Indiana Hybrid 634		97.7	2.79	22.2	58.0	100.9	104.0	103.2
21	Illinois Hybrid 710	. 103.5	100.4	3.00	24.5	52.5	91.3	106.9	103.0
22	*Pfister Hybrid 3258		103.6	2.36	22.6	45.0	78.3	110.3	102.3
23	Illinois Hybrid 936	. 94.4	92.4	2.12	21.5	65.0	113.1	98.4	102.1
24	*Indiana Hybrid 631		95.0	3.06	22.2	60.0	104.3	101.2	102.0
25	*Iowa Hybrid 3045		100.1	.49	23.0	48.0	83.5	106.6	100.8
26 27	Illinois Hybrid 754		91.5	2.03	20.9	63.0	109.6	97.4	100.5
27	*Indiana Hybrid 819		96.0	2.64	23.4	53.0	92.2	102.2	99.7
28	Indiana Hybrid 643 Funk Hybrid 207		96.0 102.8	2.93 3.84	21.5 19.0	53.0 40.0	92.2 69.6	102.2 109.5	99.7 99.5
29	*Illinois Hybrid 765		91.2	1.41	22.6	61.0	106.1	97.1	99.5
30	*Iowa Hybrid 3110.		105.2	1.03	22.2	34.0	59.1	112.0	98.8
31	*Illinois Hybrid 753		96.3	2.33	26.2	50.0	87.0	102.6	98.7
32	*Ohio Hybrid 6		91.3	1.72	19.9	59.0	102.6	97.2	98.6
33	Illinois Hybrid 760.		93.9	1.37	22.6	54.0	93.9	100.0	98.5
34	*Ohio Hybrid 8		96.6	2.33	21.1	48.0	83.5	102.9	98.1
35	*Illinois Hybrid 737		86.2	1.93	23.0	65.0	113.0	91.8	97.1
36	*Illinois Hybrid 54	. 93.3	88.5	5.14	22.0	60.0	104.3	94.2	96.8
37	*Indiana Hybrid 820	. 91.6	90.7	.98	21.8	54.0	93.9	96.6	95.9
38	*Illinois Hybrid 39		88.0	2.87	23.2	55.0	95.7	93.7	94.2
39	*Illinois Hybrid 574		93.4	4.98	23.5	44.0	76.5	99.5	93.8
40	Funk Hybrid 225.	. 98.1	95.8	2.34	20.4	39.0	67.8	102.0	93.5
41	*Indiana Hybrid 666		90.7	2.79	23.2	46.0	80.0	96.6	92.5
42 43	*Illinois Hybrid 764		90.6	3.31	22.9 23.2	46.0	80.0 83.5	96.5	92.4 87.1
43	*Obio Hybrid 7		82.9 85.5	6.01 2.40	23.2	48.0 42.0	83.5 73.0	88.3 91.1	87.1
45	*Illinois Hybrid 539 *Illinois Hybrid 579		89.5	2.40	23.9	42.0 24.0	41.7	91.1	81.9
10								95.5	
	Average of division	. 98.6	96.2	2.43	21,9	60.0	104.4	102.0	103.0
	Average of all entries	. 96.4	93.9	2.59	22.0	57.5			
_									

TABLE 27.-ARMSTRONG, CENTRAL ILLINOIS-Concluded

1936]

Rank	Entry -	Acre-yield		Damaged		Erect	Perfor	mance for—	General
		Total	Sound	shelled	ture in grain at harvest		Lodging resist- ance	Sound yield	
	Regular divis	ion-en	tries in c	ommercial	producti	оn			
		bu.	bu.	perct.	perct.	perct.	perct.	perct.	0.0
1	Funk Hybrid 220L	76.0	75.6	.53	19.8	75.5	114.5	107.2	109.0
2	Wilson Yellow Dent	70.1	68.9	1.71	21.2	64.0	97.0	97.7	97.5
3	Rice White Dent	69.7	69.3	.57	20.7	61.0	92.5	98.2	96.8
4	Station Yellow Dent.	67.4	67.1	.45	21.0	63.0	95.5	95.1	95.2
	Average of 5 best open-pollinated var	69.7	68.6	1.58	21.3	57.6	87.3	97.3	94.8
5	Eversole White Dent.	71.5	70.4	1.54	20.7	50.5	76.6	99.8	94.0
67	Canterbury Yellow Dent	$69.6 \\ 63.4$	$67.5 \\ 63.0$	3.02	22.7 21.6	49.5	75.0	95.7 89.3	90.5
8	Waddell Golden Dent Moore Yellow Dent	62.8	60.5	.63 3.66	21.0	60.5	91.7 100.1	85.8	89.9 89.4
ŝ	Shuman Golden Beauty	62.9	61.8	1.75	20.7	66.0 58.5	88.7	87.6	87.9
10	Waddell Utility Yellow Dent	63.9	63.7	.31	20.7	53.0	80.3	90.3	87.8
11	Waddell Big Democrat	60.6	59.9	1.16	22.7	55.5	84.1	84.9	84.7
12	Waddell Utility White Dent	60.5	59.7	1.32	21.8	35.0	53.1	84.6	76.7
12	Average of division	66.5	65.6	1.35	21.3	57.7	87.4	93.0	91.6
	Experimental divi	ision—ei	ntries not	in comme	ercial pro	duction			
				-					
1	Illinois Hybrid 960	90.6	90.0	. 66	20.6	85.0	128.9	127.6	127.9
2	Illinois Hybrid 710	86.4	85.2	1.39	20.6	82.0	124.3	120.8	121.7
3	Illinois Hybrid 947	81.8	80.5	1.59	21.2	82.0	124.3	114.1	116.7
4	Illinois Hybrid 945	79.7	79.0	.88	20.1	83.0	125.8	112.0	115.5
5	Illinois Hybrid 39.	$77.4 \\ 78.3$	76.7	.90	20.0 20.4	89.0	134.9	108.8	115.3
6 7	•Iowealth Hybrid CC	79.2	77.8	2.27	20.4	83.0 83.0	$125.8 \\ 125.8$	$110.3 \\ 109.7$	114.2
8	Funk Hybrid 225 Illinois Hybrid 966	74.8	77.4 73.8	1.34	20.9	92.0	125.8	109.7	113.3
ŝ	Illinois Hybrid 559	77.7	76.6	1.42	20.4	92.0 82.5	125.1	104.0	113.3
10	Funk Hybrid 207.	77.4	76.5	1.16	22.0	79.0	119.8	108.4	111.3
11	Illinois Hybrid 54	80.2	79.0	1.50	20.6	71.5	108.4	112.0	111.1
12	Funk Hybrid 231	77.7	77.1	.77	21.0	74.5	112.9	109.3	110.2
13	Illinois Hybrid 538	75.8	75.5	.40	21.3	76.5	116.0	107.0	109.3
14	Illinois Hybrid 508	72.8	70.3	3.43	20.2	90.0	136.4	99.7	108.9
15	Illinois Hybrid 546	75.9	75.3	.79	21.0	74.5	112.9	106.7	108.3
16	Illinois Hybrid 51	76.4	75.7	.92	21.6	71.0	107.6	107.3	107.4
17	Golden Beauty × 4211	75.7	75.1	.79	20.6	66.0	100.1	106.5	104.9
18	Missouri Hybrid 51.	78.2	76.9	1.66	22.4	54.4	82.5	109.0	102.4
19	Stiegelmeier Hybrid 3	67.4	67.0	.59	21.8	79.0	119.8	95.0	101.2
20	Illinois Hybrid 1074	65.6	64.9	1.07	22.2	77.5	117.5	92.0	98.4
21	Kansas Hybrid 5	74.4	73.6	1.08	22.4	53.0	80.3	104.3	98.3
22	Kansas Hybrid 3	67.3	65.3	2.97	23.2	68.0	103.1	92.6	95.2
23	Missouri Hybrid 11	69.0	67.0	2.90	22.9	61.0	92.5	95.0	94.4
24	Missouri Hybrid 19	69.1	65.6	5.07	23.0	62.0	94.0	93.0	93.3
25	Kansas Hybrid 6	71.3	69.6	2.39	22.9	49.5	75.0	98.7	92.8
26	*Waddell Utility White Dent × Indiana 33	69.3	68.4	1.30	21.2	42.0	63.7	97.0	88.7
27	Kansas Hybrid 4	67.9	67.4	.74	21.3	44.5	67.5	95.5	88.5
28	*Wood Hybrid Medium Yellow Dent	62.2	61.4	1.29	21.8	54.0	81.9	87.0	85.7
29	*Wood Hybrid Early White Dent	67.1	65.0	3.13	23.7	43.0	65.2	92.1	85.4
30	*Missouri Hybrid 8	66.5	64.5	3.01	24.7	38.0	57.6	91.4	83.0
31	*Wood Hybrid Medium White Dent	49.1	47.7	2.85	24.4	54.0	81.9	67.6	71.2
	Average of division	73.6	72.4	1.63	21.6	69.2	104.9	102.7	103.3
	Average of all entries	71.6	70.5	1.54	21.6	66.0			

TABLE 28.—WINCHESTER, SOUTH-CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1935

BULLETIN No. 427

Rank	Entry -	Acre-yield		Damaged Mo	Mois- ture in		Performance rating for-		General
		Total	Sound	_ corn in shelled sample	grain at	Erect plants	Lodging resist- ance	Sound yield	- perform- ance rating
	Regular divis	sion—en	tries in c	ommercial	producti	on			_
		bu.	bu.	perct.	perct.	percl.	perct.	perct.	
$\frac{1}{2}$	Funk Hybrid 220L.	61.7	61.2	.81	21.9	52.5	158.7	123.0	131.9
3	Station Yellow Dent.	55.2 55.7	54.9 54.0	.54 3.05	$22.0 \\ 23.2$	25.0 24.4	75.6 73.7	110.3 108.5	101.6 99.8
4	Waddell Utility Yellow Dent	53.9	52.9	1.86	23.6	25.6	77.4	106.3	99.1
- 1	Average of 5 best open-pollinated var	52.5	51.1	2.67	23.0	27.4	82.8	102.8	97.8
5	Shuman Golden Beauty	49.5	48.0	3.03	22.0	30.6	92.5	96.5	95.5
6	Moore Yellow Dent	48.2	45.9	4.77	24.0	31.2	94.6	92.3	92.9
7	Waddell Golden Dent	48.7	46.8	3.90	26.0	29,4	88.8	94.1	92.8
8	Wilson Yellow Dent	52.4	51.0	2.67	23.2	20.6	62.3	102.7	92.6
9	Community composite	48.5	45.7	5.77	24.4	27.0	81.3	91.9	89.3
10	Rice White Dent	47.4	44.9	5.27	25.8	25.6	77.4	90.2	87.0
11	Eversole White Dent	44.0	41.9	4.77	24.8	16.9	51.1	84.2	75.9
12	Waddell Utility White Dent	38.9	31.4	19.28	27.4	28.7	87.0	63.1	69.1
	Average of division	50.3	48.2	4.17	24.0	28.1	85.0	96.9	94.0
	Experimental div	ision—e	ntries not	in comm	ercial pro	duction			
1	Illinois Hybrid 960	70.4	69.3	1.56	19.2	61.2	185.2	139.3	150.8
2	Illinois Hybrid 546	61.6	60.1	2.44	20.9	63.1	190.7	120.8	138.4
3	Illinois Hybrid 966	60.1	57.6	4.16	24.8	61.9	187.1	115.8	133.6
4	Illinois Hybrid 39	61.1	59.0	3.44	22.0	53.7	162.6	118.6	129.6
5	Illinois Hybrid 947	65.8	63.6	3.34	24.0 21.6	42.5	128.4 128.4	$127.8 \\ 122.0$	128.0 123.6
6 7	Funk Hybrid 207.	64.7 58.3	60.7 57.4	6.18 1.54	21.0	42.5	137.8	115.4	123.0
8	Illinois Hybrid 710 Illinois Hybrid 945	08.0 63.5	62.3	1.89	20.7	30.6	92.5	125.2	117.0
ğ	Illinois Hybrid 1074	57.2	55.6	2.80	21.6	43.1	130.2	111.8	116.4
10	Illinois Hybrid 538	62.9	60.8	3.34	21.6	31.9	96.4	122.2	115.8
iĭ	Illinois Hybrid 559	58.3	57.2	1.89	21.8	38.1	115.1	115.0	115.0
12	Illinois Hybrid 51	59.2	57.8	2.36	21.2	31.9	96.4	116.2	111.3
13	Illinois Hybrid 508	52.8	50.8	3.79	24.8	45.0.	136.0	102.1	110.6
	*Iowealth Hybrid CC	58.3	57.3	1.72	21.8	31.3	94.6	115.2	110.1
15	Illinois Hybrid 54	54.0	52.6	2.59	22.2	40.6	122.7	105.7	110.0
16	Funk Hybrid 225	56.0	55.7	.54	20.6	32.5	98.2	112.0	108.6
17	Golden Beauty \times 4211	59.2	54.4	8.11	25.2	31.3	94.6	109.3	105.6
18	Funk Hybrid 231	54.7	54.3	.73	20.1	24.4	73.7	109.1	100.3
19	Stiegelmeier Hybrid 3	50.5	47.3	6.34	25.8	36.9	111.5	95.1	99.2
20	Kansas Hybrid 3	52.5	49.3	6.10	27.2	30.0	90.7	99.1	97.0
21	Missouri Hybrid 51	53.7	49.7	7.45	28.0	23.8	71.9	99.9	92.9
22	Kansas Hybrid 5	$\frac{51.6}{52.8}$	48.3 46.9	6.40 11.17	28.4 25.8	25.6 19.4	77.4 58.6	97.1 94.3	92.2 85.4
23 24	Missouri Hybrid 11 *Wood Hybrid Medium Yellow Dent	43.1	40.9	3.02	23.8	27.5	38.0 83.1	94.3 84.0	83.8
25	Kansas Hybrid 4	43.1	40.7	7.50	24.4	25.0	75.6	81.8	80.3
26	Missouri Hybrid 19.	45.3	43.1	4.86	26.0	20.0	60.4	86.6	80.1
	*Waddell Utility White Dent × Indiana 33		36.9	11,72	26.8	31.3	94.6	74.2	79.3
28	Kansas Hybrid 6	47.2	36.2	23.31	27.8	28.1	84.9	72.8	75.8
	*Wood Hybrid Early White Dent	39.9	28.1	29.57	32.2	22.5	68.0	56.5	59.4
30	*Missouri Hybrid 8.	36.1	29.0	19.67	28.8	18.8	56.8	58.3	57.9
31	*Wood Hybrid Medium White Dent	26.6	16.8	36.84	34.2	25.0	75.6	33.8	44.3
	Average of division	53.7	50.3	6.33	24.4	35.0	105.8	101.2	102.4
	Average of all entries	52.7	49.7	5.69	24.3	33.1			

TABLE 29.—SULLIVAN, SOUTH-CENTRAL ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1935

*Average of 4 plots instead of 8.

1936]

	Entry -	Acre	-yield	Damaged corn in	Mois-	Erect plants	Performance rating for—		General
Rank		Total	Sound	shelled	grain at harvest		Lodging resist- ance	Sound yield	- perform- ance rating
1.1	Regular divis	sion—en	tries in c	ommercia	l producti	on			
		bu.	bu.	perct.	perct.	perct.	perct.	perct.	
1	St. Charles White	57.9	56.8	1.90	22.9	32.0	95.3	114.2	109.5
1	Community composite (Semesan Jr.).	$\frac{58.7}{55.8}$	$\frac{56.8}{55.5}$	3.23 .54	$26.2 \\ 26.1$	32.0	95.3	114.2	109.5
2	Waddell Golden Beauty	58.7	55.0	6.30	$\frac{20.1}{22.0}$	$34.0 \\ 35.0$	$101.3 \\ 104.2$	$111.6 \\ 110.6$	109.0 109.0
2	Moore Yellow Dent Average of 5 best open-pollinated var	56.5	54.8	3.01	22.0	33.1	98.6	110.0	109.0
3	Waddell Golden Dent	53.7	52.4	2.42	23.2	34.0	101.3	105.4	104.3
3	Waddell Big Democrat	56.4	54.1	4.08	23.8	30.5	90.8	108.8	104.3
4	Waddell Yellow Pearl	50.5	49.3	2.38	28.6	38.5	114.7	99.1	103.0
5	Waddell Utility Yellow Dent	52.5	51.5	1.90	25.8	30.5	90.8	103.6	100.4
6	Champion White Pearl	53.9	43.8	18.74	25.8	39.5	117.6	88.1	95.5
7	Community composite (Barbak)	47.3	44.6	5.71	22.2	34.0	101.3	89.7	92.6
7	Blackhawk	51.6	48.3	6.40	26.8	26.5	78.9	97.1	92.6
8	Pride of Saline	49.8	46.5	6.63	28.2	30.0	89.3	93.5	92.5
9	Waddell Utility White Dent	45.8	44.4	3.06	25.4	32.0	95.3	89.3	90.8
10	Station Yellow Dent	50.4	47.8	5.16	20.3	24.5	73.0	96.1	90.3
11	Community composite (untreated)	48.2	38.7	19.71	27.0	30.5	90.8	77.8	81.1
12	Leaming (Kiefer)	47.6	35.7	25.00	28.2	33.0	98.3	71.8	78.4
	Average of division	52.4	48.8	6.87	25.1	32.3	96.1	98.2	97.9
	Experimental div	ision—e	ntries not	in comm	ercial pro	duction			
1	*Indiana Hybrid 835	66.5	64.0	3.76	21.0	42.0	125.1	128.7	127.8
2	*Missouri Hybrid 19	70.0	67.6	3.43	24.2	31.0	92.3	135.9	125.0
3	Illinois Hybrid 508	58.6	57.7	1.54	21.4	46.5	138.5	116.0	121.6
4	Illinois Hybrid 46	56.2	53.6	4.63	19.0	51.5	153.4	107.8	119.2
5	*Champion White Pearl \times B 103 *Champion White Pearl \times Indiana 33	63.7	59.1	7.22	23.2	36.0	107.2	118.8	115.9
6	*Champion White Pearl X Indiana 33	62.0	52.9	14.68	20.1	46.0	137.0	106.4	114.0
6	Indiana Hybrid 823	53.0	51.9	2.08	23.9	48.0	142.9	104.4	114.0
7	Illinois Hybrid 546	49.5	48.9	1.21	21.4	53.5	159.3	98.3	113.6
8	Illinois Hybrid 710	53.5	53.1	.75	23.4	33.5	99.8	106.8	105.0
9	Golden Beauty × 5680	58.5	56.3	3.76	27.5	25.5	75.9	113.2	103.9
10 11	*Illinois Hybrid 559.	51.0	50.3	1.37	21.2	36.0	107.2	101.2	102.7
11	*Champion White Pearl × Pride of	51.8	50.0	3.47	19.2	36.0	107.2 '	100.5	102.2
12	Saline 47 Golden Beauty \times 4211	51.0	50.0	1.57	21.8	35.0	104.2	101.0	101.8
13	Illinois Hybrid 51	47.6	46.4	2.52	21.8	39.5	117.6	93.3	99.4
14	Indiana Hybrid 880.	53.7	53.0	.56	21.4	25.0	74.5	106.6	98.6
15	Illinois Hybrid 54.	47.2	46.8	.85	22.9	37.5	111.7	94.1	98.5
16	Golden Beauty × 5110	50.0	49.5	1.00	20.6	31.0	92.3	99.5	97.7
17	Golden Beauty X 5110 Missouri Hybrid 8	48.5	45.8	5.57	25.9	38.0	113.2	92.1	97.4
18	*Missouri Hybrid 11	55.3	52.0	5.97	23.6	24.0	71.5	104.6	96.3
19	*Golden Beauty × 5677	52.7	48.9	7.21	22.4	24.0	71.5	98.3	91.6
20	*Indiana Hybrid 815	43.9	43.0	2.05	23.4	35.0	104.2	86.5	90.9
21	*Champion White Pearl \times Pride of								
	Saline 29	56.5	45.9	18:76	26.8	26.0	77.4	92.3	88.6
22	Wood Hybrid Early White Dent	48.6	42.9	11.73	26.6	28.5	84.9	86.3	85.9
23	*Illinois Hybrid 538	46.7	46.0	1.50	26.2	20.0	59.6	92.5	84.3
24	Wood Hybrid Medium Yellow Dent	44.9	39.7	11.58	21.2	23 5	70.0	79.8	77.4
25	Wood Hybrid Medium White Dent	39.3	32.1	18.32	28.0	21.5	64.0	64.6	64.4
	Average of division	53.1	50.3	5.27	23.0	34.4	102.4	101.1	101.4
	Average of all entries	52.8	49.7	5.87	23.8	33.6			

 TABLE 30.—ALHAMBRA, SOUTHERN ILLINOIS:
 PERFORMANCE OF CORN

 VARIETIES AND HYBRIDS, 1935

BULLETIN NO. 427

[December,

	Eatry -	Acre-yield		Damaged corn in	l Mois- ture in	Erect	Performance rating for—		General - perform-
Rank		Total	Sound	shelled gra	grain at harvest		Lodging resist- ance	Sound yield	ance rating
	Regular divis	ion—en	tries in c	ommercia	l producti	on			
		bu.	bu.	perct.	perct.	perct.	perct.	perct.	
1	Moore Yellow Dent	50.1	49.4	1.40	24.9	60.5	102.6	103.8	103.5
2	Pride of Saline	50.8	50.2	1.18	28.3	41.5	70.4	105.5	96.7
3	Community composite (Semesan Jr.)	44.3	44.2	.23	22.7	60.5	102.6	92.9	95.3
		46.5	45.9	1.29	25.5	51.8	87.9	96.5	94.4
4	Community composite (Barbak)	43.1	43.0	.23	22.7	57.0	96.7	90.4	92.0
5	Waddell Utility White Dent	45.0	43.6	3.11	24.3	54.0	91.6	91.6	91.6
6	Waddell Golden Beauty	43.2	43.2	0	23.9	53.5	90.8	90.8	90.8
7	Community composite (untreated)	43.3	43.2	.23	22.7	51.0	86.5	90.8	89.7
8	Blackhawk	43.5	43.3	.46	26.1	49.5	84.0	91.0	89.3
9	Champion White Pearl	42.2	39.4	6.64	25.8	53.5	90.8	82.8	84.8
	Average of division	45.1	44.4	1.55	24.6	53.4	90.7	93.3	92.6
	Experimental div	ision—e	ntries no	t in comm	ercial pro	duction			
1	*Indiana Hybrid 815	63.4	63.1	.47	32.6	73.0	123.9	132.6	130.4
2	*Moore Yellow Dent X Indiana B ₂	54.5	52.8	3.12	25.1	81.0	137.4	111.0	117.6
3	*Moore Yellow Dent × 4211	53.2	53.1	.19	22.0	74.0	125.5	111.6	115.1
4	*Champion White Pearl × Indiana 33	53.9	53.7	.37	26.9	68.0	115.4	112.9	113.5
5	*Illinois Hybrid 508	49.1	47.7	2.85	21.9	83.0	140.8	100.3	110.4
6	*Indiana Hybrid 880	52.2	52.0	.38	17.2	65.0	110.3	109.3	109.6
7	*Champion White Pearl \times B 103	59.1	57.6	2.54	25.3	42.0	71.3	121.1	108.7
8	*Indiana 33 × Champion White Pearl.	53.0	52.7	.57	25.2	57.4	97.4	110.8	107.5
9	*Missouri Hybrid 51	53.1	53.0	. 19	35.9	50.0	84.8	111.4	104.8
10	*Illinois Hybrid 54	45.1	45.0	. 22	22.4	72.0	122.2	94.6	101.5
11	*Champion White Pearl × Pride of Saline 29	53.4	53.0	.75	25.4	42.0	71.3	111.4	101.4
12	*Champion White Pearl × Pride of				22.5		128.9	87.4	97.8
10	Saline 47.	42.3	41.6 42.5	1.65	22.5	$\frac{76.0}{72.0}$	128.9	89.3	97.5
13	*Indiana Hybrid 823 *Indiana Hybrid 835				18.9	74.0	122.2	85.8	97.5
14 15	*Champion White Pearl X Pride of	41.4	40.8	1.45				•	
	Saline 6	49.7	49.5	.40	23.8	39.0	66.2	104.0	94.6
16	*Missouri Hybrid 19	46.5	46.5	0	29.9	50.0	84.8	97.7	94.5
17	*Indiana Hybrid 850	42.7	42.2	1.17	24.3	44.0	74.7	88.7	85.2
18	*Golden Beauty × 5677	39.7	38.4	3.27	24.9	48.0	81.4	80.7	80.9
	Average of division	49.7	49.2	1.01	24.8	61.7	104.7	103.4	103.7
	Average of all entries	48.2	47.6	1.24	24.7	58.9			

TABLE 31.—EDGEWOOD, SOUTHERN ILLINOIS: PERFORMANCE OF CORN VARIETIES AND HYBRIDS, 1935

Contributors of Seed for the 1935 Corn Performance Tests

CONTRIBCTORS OF SEED I	FOR THE 1905 CORN TERFORS	IANCE TESIS
Entry	Contributor	Address
Angevine Yellow Dent	L. L. Angevine	.Osco
Armstrong community composite.	.High School Agr. Dept	. Armstrong
Blackhawk	Ernst Haller, Ir	Highland
Canterbury Yellow Dent	. C. E. Canterbury	. Cantrall
Canterbury Yellow Dent Champion White Pearl	F. V. Wilson and Son	. Edgewood
Champion White Pearl top crosses	Illinois Station	. Urbana
Curtiss Western Plowman	. Homer Curtiss	Stockton
DeKalb community composite	. High School Agr. Dept	. DeKalb
DeKalb Hybrids 3Å, 38-495	. DeKalb Co. Agr. Assoc	. DeKalb
Dewey Yellow Dent	. James Dewey	. Armstrong
Doubet Yellow Dent.	. Ed. W. Doubet	. Hanna City
Dwight community composite	. High School Agr. Dept	. Dwight
Eckhardt Golden King	Corn Belt Seed Co	DeKalb
Eckhardt Golden King Eckhardt Western Plowman		· Dertailo
Effingham community composite.	. High School Agr. Dept	. Effingham
Evans Will County Favorite	Evans Seed Co	. Rochelle
Eversole White Dent	J. H. Eversole	. Champaign
Eversole White Dent Funk Hybrids 206-231	Funk Bros. Seed Co	. Bloomington
Golden Beauty top crosses	Illinois Station	. Urbana
Greenlee Yellow Dent		
Gunn Western Plowman		
Heckerson Yellow Dent		
Henry community composite		
Herndon Yellow Dent		
Highland community composite		
Hoblit Golden Eagle	Dean Hoblit	. Atlanta
Hulting Yellow Dent	C. E. Hulting	. Geneseo
Illinois Hybrids 29-1074	. Ill. Sta. and U.S.D.A	. Urbana
Illinois Hybrid D118-477	DeKalb Co. Agr. Assoc	. DeKalb
Indiana Hybrids 425-880	. Purdue Sta. and U.S.D.A	.LaFayette, Indiana
Iowa Hybrids 13-3294	. Iowa Sta. and U.S.D.A	. Ames, Iowa
Iowealth Hybrids B, BC, etc	. Leonard Seed Co	.Chicago
Kansas Hybrids 3-6	Kans. Sta. and U.S.D.A	. Manhattan, Kansas
Knox county composite	High School Agr. Dept	.Galesburg
Leaming	. Xavier Kiefer	. Belle Rive
Long John	B. S. Griffith	.Clinton
Long John top cross	. Illinois Station	. Urbana
McKeighan Yellow Dent	J. L. McKeighan	. Yates City
Missouri Hybrid 8-51	Missouri Sta. and U.S.D.A	.Columbia, Missouri
Moews Hybrid 22-32	. Ben Moews	.Granville
Moore Yellow Dent		
Moore Yellow Dent top crosses	. Illinois Station	. Urbana
Morgan Hybrid M.W.104-138	. Morgan Brothers	.Galva
Mountjoy Utility Dent	Oscar Mountjoy	Atlanta
Mummert-Hahn Dent	John Hahn	. Dwight
National Hybrid 9	. Leonard Seed Co	.Chicago
Ohio Hybrid 3-8	. Ohio Sta. and U.S.D.A	. Wooster, Ohio
Original Krug.	. Woodford Co. Agr. Assoc	. Eureka
Pfister Hybrid 584, etc.	Lester Phster	. El Paso
Pioneer Hi-Bred 306-3500	. Pioneer Hi-Bred Seed Co	. Des Moines, Iowa
Pride of Saline.	Kans. Sta. and U.S.D.A.	. Manhattan, Kansas
Pride of Saline top cross		Urbana
Queen of the Field.		
Rice White Dent.	J. K. KICE	. Diue Mound
Rochelle community composite		
Roeschley Utility Dent	Doop Brothers	Tramont
Ropp Yellow Dent		. remont

Entry	Contributor	Address
St. Charles White	E. H. Isenberg	Kaufman
Shuman Golden Beauty	Charles Shuman	Sullivan
Simmons Will Co. Favorite	C. J. Simmons	Stockton
Sommer Yellow Dent	Sommer Brothers	Pekin
Station Yellow Dent	Illinois Station	Urbana
Stiegelmeier Hybrid 2-3	H. L. Stiegelmeier	Normal
Stiegelmeier Improved Dent		
	eHigh School Agr. Dept	
Suchy Yellow Dent	Anton Suchy and Son	Algonquin
Sullivan Composite	High School Agr. Dept	Sullivan
	O. P. Tiemann	
	U. S. Dept. Agr	Washington, D. C.
Waddell Big Democrat		
Waddell Golden Beauty		
Waddell Golden Dent	Elmer Waddell	Taylorville
Waddell Utility White Dent		-
Waddell Utility Yellow Dent		
Waddell Yellow Pearl		
Waddell Utility White Dent		11.1
	Illinois Station	
	William Webb	
Wilson Yellow Dent	Ed. Wilson	Winchester
	Wisc. Sta. and U.S.D.A	Madison, wisconsin
Wood Hybrid Early White I	Vent West Sand Ca	Dishmand Vincinia
	ent { Wood Seed Co	Kienmond, virginia
Wood Hybrid Med. Yellow De	ent j	

10,050-12-36-10754





