Results of the KENTUCKY CORN YIELD TEST - 1956

By J. F. SHANE, F. A. LOEFFEL and R. RICHARDS

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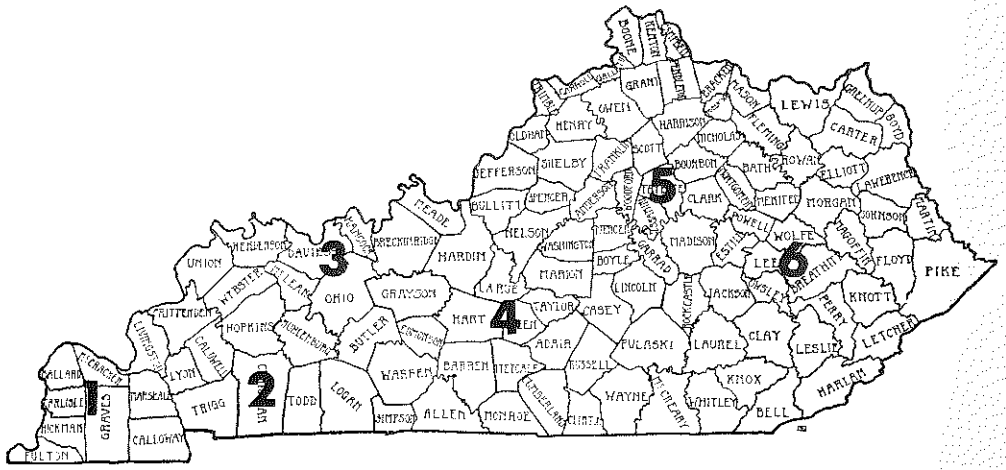
LOCATIONS OF

THE 1956 CORN PERFORMANCE TEST



	Location	Cooperator
1.	Wickliffe	James Wilson
2.	Owensboro	John H. Gregory
3.	Hopkinsville	Pennyrile Grain Imp. Ass'n. W. G. Duncan, III
4.	Greensburg	W. J. Ashbrook
5.	Lexington	Ky. Agr. Exp. Sta.
6.	Quicksand	Robinson Agr. Exp. Substation Roger W. Jones

RESULTS OF THE KENTUCKY CORN PERFORMANCE TEST IN 1956.

J. F. Shane, F. A. Loeffel and H. R. Richards

The Kentucky Corn Yield Test was designed for the first time in 1956 to provide information on the relative performance of many of the corn hybrids which are commercially available in Kentucky. Only a limited number of these hybrids could be tested in previous years. This Kentucky Corn Yield Test was conducted by the University of Kentucky Agricultural Experiment Station as one part of an integrated testing program on corn. Seed of the private hybrids included in the experiments were submitted by the agencies which control those hybrids. This test should provide meaningful information on the relative merits of the various hybrids offered for sale in Kentucky. This report contains information obtained in 1956. Owing to the variation in weather conditions from year to year, the results from the Kentucky Corn Yield Test for a specific hybrid will become more valuable with additional years of testing.

Test locations were selected which would best represent the corn-producing areas of the state. On the inside of the front cover is a map showing the locations of the testing areas and a list of the cooperators. Fifty-six hybrids available to the farmers of Kentucky were evaluated for performance. These hybrids were developed by state and federal agencies and by privately controlled seed companies. All of the hybrids were tested at each location. Presented in Table 1 is the hybrid designation, color, kind of a cross, and the name of the entrant. Crosses are designated as follows: single cross, 2x; three-way cross, 3x; and a double cross, 4x. Pedigrees of the hybrids developed by state and federal agencies are presented in Table 2.

Growing conditions in 1956 were ideal for the production of corn. The state average is estimated to be 45 bushels per acre for 1956 which is the highest on record. State averages have been above 40 bushels only in 1948 and 1950 when they were 41 bushels per acre. Moisture conditions were more favorable for corn production in eastern Kentucky than in western Kentucky in 1956. The average yield for all entries was 95.9 bushels per acre in eastern Kentucky and 69.4 bushels for western Kentucky. Test averages for the individual testing locations were: Wickliffe, 76.6 bushels; Owensboro, 69.1 bushels; Hopkinsville, 62.6 bushels; Greensburg, 101.6 bushels; Lexington, 93.2 bushels; and Quicksand, 93.0 bushels per acre.

Cultural practices normally followed in each area determined the spacing of hills and plant populations. The number of plants per acre was as follows: Wickliffe, 11,700; Owensboro, 11,700; Hopkinsville, 10,700; Greensburg, 13,000; Lexington, 10,700; and Quicksand, 14,500.

Each hybrid was planted in a 2 x 5 hill plot and repeated four times at each testing location. Other information pertaining to testing locations is presented in Table 3. Performance records for the hybrids are presented in Tables 4-12. Table 4 is a summary for all six locations. Table 5 presents the summary for western Kentucky and Table 6 the summary for eastern Kentucky. Performance records for individual locations are presented in Tables 7-12.

1. Yields are reported as bushels of shelled grain per acre at 15.5 percent moisture. Each plot was harvested, weighed separately, and the yield calculated from the average of four replications. The exception was at Greensburg where only three replications were harvested.

2. Moisture at harvest. A composite sample of corn from seven to ten ears from each of three replications was used for moisture determinations.

3. Root-lodging. An actual count of the plants leaning at an angle of 30 degrees or more was used in calculating the percentage of root-lodged plants.

4. Stalk-lodging. Only those plants broken between the ear-bearing node and the ground are considered stalk-lodged.

5. Dropped ears. The percentage of dropped ears is based on the number of ears found on the ground in relation to the number of plants.

6. Stand. The percentage stand is the number of plants divided by the number of plants that would have been present if all survived.

7. 50% silked. This is given as the number of days after July 1 when silks were visible on 50 percent of the plants. Records on 50 percent silking were made at Lexington only.

8. Ratings on Corn borer leaf feeding were taken only at Lexington. The ratings are based on a 1 to 5 scale in which a rating of 1 represents the least amount of feeding.

9. Disease ratings are recorded on a 1 to 3 scale with a rating of 1 representing the least severity of disease. Leaf diseases were not present at all locations. Ratings for Stewart's wilt were taken at Wickliffe, for southern leaf blight at Greensburg, and for a combination of northern and southern leaf blight at Quicksand.

10. Ear height grade is based on a scale of 1 to 6 which approximates the height in feet from the ground to the point of ear-attachment. Ear height is important in relation to mechanical harvesting and to root and stalk lodging.

Interpretation of Data

The difference necessary to reasonably assure that inherent yield potential exists between any two hybrids has been calculated. This figure is given at the bottom of each table. Unless the yields of the two hybrids being compared differ by as much as or more than this figure, little confidence can be placed in the indicated superiority of one hybrid over the other under the conditions of the particular test.

Data on agronomic characteristics other than yield have not been subjected to statistical analysis. Small differences between any two hybrids are likely to be of little importance and s hould not be considered as representing a true difference.

Table 1. Hybrids tested in 1956.

Hybrid	Color	Cross	Source of Hybrids
AES 801	Y	4x	Agricultural Experiment Station (North Central)
AES 805	Y	4x	
Bartlett & O'Bryan W-23	W	4x	Bartlett & O'Bryan, Owensboro, Ky.
Bartlett & O'Bryan Y-120	Y	4x	
Broadbent 235A	W	4x	Broadbent Hybrids, Cobb, Ky.
402	Y	4x	
402A	Y	4x	
337	W	4x	
Cardinal 9	W	4x	Frank T. Street, Cardinal Farms, Henderson, Ky.
DeKalb 803	Y	3x	DeKalb Agricultural Ass'n., DeKalb, Ill.
805	Y	2x	
811	Y	4x	
875	Y	4x	
893	Y	4x	
898	Y	4x	
925	W	4x	
1002	Y	4x	
Funk G-91	Y	4x	Funk Bros. Seed Co., Bloomington, Ill.
G-134	Y	4x	
G-144	Y	4x	
G-512W	W	4x	
G-706	Y	4x	
Hagan H7	Y	4x	R. M. Hagan, Owensboro, Ky.
Ind. 750B	W	4x	Purdue University Agricultural Experiment Station, Lafayette, Ind.
844D	Y	4x	
Ky 102	Y	4x	University of Kentucky Agricultural Experiment Station, Lexington, Ky.
103	Y	4x	
104	Y	4x	
105	Y	4x	
106	Y	4x	
106A	Y	4x	
203	W	4x	
204	W	4x	
Meacham M-5W	W	4x	Chas. M. Meacham & Sons., Meacham's Koreandale Farms, Morganfield, Ky.
M-33Y	Y	4x	
Ohio L41	Y	4x	Ohio Agricultural Experiment Station, Wooster, Ohio
L51	Y	4x	
P. A. G. 347	Y	4x	Pfister Associated Growers, Inc., Aurora, Ill. and Huntsville, Alabama
401	Y	4x	
444	Y	4x	
631W	W	4x	
633W	W	4x	
Pioneer 300	Y	4x	Pioneer Corn Company, Inc., Tipton, Ind.
301A	Y	4x	
302	Y	4x	
309A	Y	4x	
329	Y	4x	
338A	Y	4x	
342A	Y	4x	
505	W	4x	
Stull 100Y	Y	4x	Stull Brothers, Inc., Sebree, Ky.
101Y	Y	4x	
200Y	Y	4x	
400W	W	4x	
U. S. 13	Y	4x	Experiment Station (U. S. D. A.)
523W	W	4x	

Table 2. Pedigrees of Experiment Station and U. S. hybrids tested in 1956.

Hybrids	
AES 801	(WF9 x B7) x (B10 x B14)
AES 805	(WF9 x 38-11) x (C103 x Oh 45)
Ind. 750B	(K41 x K44) x (33-16 x H21)
844D	(WF9 x 38-11) x (Tr x Hy)
Ky 102	(Kys x 38-11) x (K4 x L317)
103	(WF9 x 38-11) x (K4 x L317)
104	(Ky 106 x R32) x (K4 x L317)
105	(T8 x CI 21E) x (38-11 x Oh 7B)
106	(WF9 x 38-11) x (CI21E x L317)
106A	(WF9 x 38-11) x (CI21E x Oh 41)
203	(Ky 27 x Ky 122) x (33-16 x Ky 49)
204	(K64 x 33-16) x (K55 x Ky 201)
Ohio L41	(WF9 x Hy) x (Oh 41 x Oh 40B)
L51	(WF9 x Hy) x (Oh 43 x Oh 45)
U. S. 13	(WF9 x 38-11) x (Hy x L317)
523W	(K64 x K 65) x (Ky 27 x Ky 49)

Table 3. Information pertaining to testing locations.

Location	Soil Type	Previous Crop	Fertilizer Applied	Plants per Acre	Date Planted	Date Harvested	Experiment Average Yield	Experiment Average Moisture
1. Wickliffe	Sandy loam	Soybeans	100# 12-12-12 100# Anhydrous	11,700	May 3	Oct. 4	76.6	15.2
2. Owensboro	Sandy loam	Ladino and Red clover	200# 6-12-12 125# Am.nitrate	11,700	May 1	Oct. 6	69.1	16.5
3. Hopkinsville	Silt loam	Lespedeza-no stand	300# 0-30-30 100# Anhydrous	10,700	May 10	Oct. 9	62.6	15.6
4. Greensburg	Silt loam	Red clover Orchardgrass	300# 3-12-12	13,000	May 11	Oct. 22	101.6	18.0
5. Lexington	Silt loam	Red clover (2 years)	8 T. manure	10,700	May 11	Oct. 24	93.2	19.3
6. Quicksand	Sandy loam	Alfalfa and Red clover	3 T. manure	14,500	May 18	Oct. 17	93.0	21.4

Table 4. Summary of agronomic data recorded on commercially available hybrids compared in Experiments 1, 2, 3, 4, 5 and 6 grown in Kentucky in 1956.

Entry No.	Pedigree	Acre Yield bu.	Moist %	50 % Silked	Lodging % Root	Lodging % Stalk	Corn Borer L. F.	Disease Rating	Dropped Ears %	Ear ht. grade	Stand %
01	AES 801	75.5	15.3	22.5	0	2.9	2.8	2.4		3.4	90.1
02	DeKalb 925	85.6	18.1	25.3	1.9	8.4	3.8	1.5		4.0	93.5
03	Cardinal 9	81.3	18.7	23.8	0.3	3.0	3.3	2.1		3.7	90.7
04	Broadbent 402	84.6	16.9	21.8	0.2	3.4	2.3	1.7	0.2	4.0	90.3
05	US 523W	84.5	18.2	25.0	0	8.5	3.0	1.5	0.2	3.7	90.4
06	Ky 105	93.1	18.4	25.3	0.2	6.3	2.8	1.8		4.1	93.9
07	Stull 200 Y	81.5	16.9	21.5	0.3	2.1	3.0	1.8		3.6	84.5
08	Ohio L41	84.3	16.6	19.3	0.2	5.5	1.8	1.9		3.5	92.7
09	P. A. G. 631W	87.9	18.3	24.8	0.5	10.5	3.3	1.6	0.2	3.8	90.9
10	Broadbent 402A	80.9	20.6	27.5	2.3	4.5	2.0	1.3	0.2	4.6	89.7
11	Hagan H-7'	83.6	16.8	22.8	0.8	4.0	2.8	1.3		3.8	89.7
12	Ind. 844D	77.8	17.5	20.8	0	9.6	3.0	2.1		3.5	90.4
13	Pioneer 342A	75.3	15.2	17.3	0.5	5.3	3.5	2.3		3.4	91.0
14	DeKalb 893	84.5	20.9	26.3	2.5	10.0	1.0	1.7		4.2	88.7
15	DeKalb 1002	83.4	18.1	23.8	0.2	17.7	3.5	2.1		4.0	93.9
16	Ind. 750B	79.0	18.4	23.3	0.2	5.4	2.5	1.5		3.8	82.9
17	Pioneer 505	81.9	17.7	27.3	1.6	4.6	3.3	1.4		4.3	92.3
18	Broadbent 337	84.9	17.1	25.0	4.5	9.6	4.0	1.3		3.9	93.8
19	Stull 100 Y	81.9	17.0	22.0	0	2.5	3.0	1.7		3.7	92.3
20	Meacham M5	88.8	17.7	23.3	2.0	6.8	3.5	1.4		3.8	96.5
21	Dekalb 805	89.7	16.5	20.8	0	1.0	3.3	1.1		3.5	90.1
22	Ky 106	82.4	16.8	25.8	1.0	10.8	3.8	1.9		4.0	90.1
23	Ky 102	84.2	18.1	26.0	1.4	20.6	2.0	1.6		4.3	92.7
24	Stull 400W	85.1	17.7	23.5	0.8	5.1	1.8	1.6	0.2	4.1	88.8
25	P. A. G. 347	72.0	17.6	20.0	0.2	4.7	2.5	1.9		3.5	91.6
26	Pioneer 301A	82.0	16.2	21.8	0.5	2.3	4.3	2.2	0.2	3.3	87.7
27	P. A. G. 401	83.3	16.3	22.0	1.2	6.6	2.5	2.5		3.7	94.6
28	DeKalb 811	76.4	16.3	21.8	0.3	7.1	2.5	2.5		3.5	91.9
29	Pioneer 338A	80.5	16.2	22.3	0.5	4.4	3.8	1.5		3.5	92.0
30	Pioneer 329	77.6	17.5	20.0	0.3	3.7	4.3	1.9		3.4	94.0
31	Meacham M33Y	79.9	17.3	19.3	1.3	5.3	1.8	1.6		3.6	87.7
32	Funk G-512W	90.6	18.6	25.0	2.4	7.6	2.8	1.8		4.3	90.1
33	Bartlett & O'Bryan W23	80.1	18.1	24.5	0.3	4.1	3.3	1.8		3.6	92.3
34	DeKalb 803	72.4	17.2	21.0	0.6	7.2	3.0	1.7		3.6	94.3
35	Broadbent 235A	82.2	18.0	25.0	0	8.2	2.0	1.5		4.1	90.4
36	Ky 104	88.4	19.6	27.3	6.9	19.0	2.8	1.9	0.2	4.3	92.2
37	AES 805	85.8	17.4	20.3	0.2	2.2	2.0	1.5		3.7	91.9
38	Funk G-144	83.5	18.1	21.5	0	2.9	2.8	1.3		3.4	88.5
39	Ky 103	75.3	16.9	24.3	0.5	9.9	2.3	2.0	0.2	4.0	89.4
40	Stull 101 Y	91.9	16.9	22.3	0	3.9	3.3	1.9	0.2	4.0	96.5
41	Funk G-134	85.7	17.4	22.5	0.2	3.5	3.0	1.6		3.8	92.2
42	P. A. G. 633W	87.3	19.8	24.8	1.1	4.9	3.8	1.8		4.0	92.3
43	Pioneer 300	81.8	15.8	20.5	1.6	7.5	3.0	2.5		3.9	88.5
44	Ky 204	81.7	18.2	24.3	1.4	3.6	3.3	1.8		3.5	92.7
45	Pioneer 302	83.2	19.1	23.5	0.5	3.4	2.8	1.8	0.2	3.7	89.1
46	P. A. G. 444	81.8	17.9	21.3	0.2	1.6	1.8	1.8		3.7	92.0
47	Funk G-706	85.8	18.5	22.0	1.3	8.6	3.3	1.7		3.8	91.4
48	DeKalb 898	75.4	17.2	23.0	0	6.0	4.0	2.2		4.0	89.4
49	Ky 106A	87.3	17.8	22.8	0.2	6.6	3.0	1.7	0.2	4.0	92.6
50	US 13	81.1	17.1	21.5	0.3	12.2	2.3	2.4	0.2	4.0	91.4
51	Bartlett & O'Bryan Y-120	88.0	17.6	22.8	1.2	5.1	3.5	1.9		3.8	93.2
52	DeKalb 875	83.6	17.1	23.0	0	9.4	3.3	1.8	0.2	3.6	92.7
53	Pioneer 309A	84.5	22.5	24.8	0	1.3	2.5	1.2		4.0	92.3
54	Funk G-91	85.8	17.3	20.5	0	5.7	3.8	1.5	0.2	3.7	91.3
55	Ky 203	77.5	18.0	25.8	0.6	14.7	3.8	1.4	0.2	4.0	93.9
56	Oh L51	77.7	16.7	17.3	2.8	2.4	1.5	1.6	0.6	3.2	92.2
	Mean	82.7	17.7	22.9	0.9	6.5	2.9	1.8	0.1	4.1	91.3

Table 5. Summary of agronomic data recorded on commercially available hybrids compared in Experiments 1, 2 and 3 grown in Western Kentucky in 1956.

Entry No.	Pedigree	Acre Yield bu.	Moist %	Lodging % Root	Lodging % Stalk	Disease Rating	Dropped Ears %	Ear ht. grade	Stand %
01	AES 801	66.7	13.6		3.3	1.5		3.3	91.4
02	DeKalb 925	70.2	16.2	2.4	10.6	1.0		3.9	94.2
03	Cardinal 9	69.3	16.5	0.6	2.1	1.8		3.9	90.8
04	Broadbent 402	71.8	15.0		4.2	1.3	0.3	4.0	92.0
05	US 523 W	68.4	16.4		9.2	1.5	0.3	3.7	90.6
06	Ky 105	77.9	16.7		8.7	1.8		4.2	95.3
07	Stull 200Y	72.0	15.8		2.4	1.5		3.6	79.5
08	Ohio L41	69.1	14.8		9.0	1.8		3.4	90.0
09	P.A.G. 631W	75.4	16.1	0.6	14.4	1.5		3.8	90.6
10	Broadbent 402A	62.1	16.6		4.9	1.3		4.8	91.4
11	Hagen H-7	71.5	14.7	1.5	5.4	1.3		3.7	93.3
12	Ind. 844D	68.7	15.4		11.4	1.5	0.3	3.3	92.5
13	Pioneer 342A	67.6	14.0	0.9	7.6	1.8		3.4	94.7
14	DeKalb 893	68.7	18.2	1.3	7.3	1.3		4.2	88.1
15	DeKalb 1002	69.3	16.8		24.3	2.0		4.1	95.0
16	Ind. 750B	65.7	17.0		4.0	1.5		3.6	76.7
17	Pioneer 505	63.0	15.9	2.9	6.1	1.5		4.6	95.0
18	Broadbent 337	68.5	17.1	5.7	11.9	0.8		3.9	93.3
19	Stull 100Y	66.2	14.9		2.4	1.5		3.6	93.9
20	Meacham M5	73.2	15.8	3.4	9.5	1.0		3.9	97.0
21	DeKalb 805	75.3	14.4		1.0	1.0		3.3	85.8
22	Ky 106	71.1	15.2	1.8	9.4	1.8		3.9	91.7
23	Ky 102	68.5	16.1	2.0	22.3	1.0		4.5	95.8
24	Stull 400W	72.2	15.3	0.6	5.8	1.5		4.2	91.7
25	P.A.G. 347	64.8	14.6		6.6	1.0		3.3	92.8
26	Pioneer 301A	67.4	14.7		3.1	2.0		3.1	88.3
27	P.A.G. 401	70.4	15.2	2.3	8.5	2.3		3.6	95.0
28	DeKalb 811	65.8	14.2		6.2	1.8		3.3	94.2
29	Pioneer 338A	70.5	14.6	0.9	5.7	1.5		3.2	93.3
30	Pioneer 329	70.5	14.2	0.6	4.7	1.8		3.1	94.7
31	Meacham M33Y	67.1	15.1	2.6	7.1	1.5		3.6	85.6
32	Funk G-512W	76.3	16.6	2.5	6.6	1.5		4.4	88.9
33	Bartlett & O'Bryan W23	64.8	16.2	0.6	5.1	1.0		3.5	92.5
34	DeKalb 803	61.8	15.4	1.1	10.3	1.3		3.6	97.5
35	Broadbent 235A	70.3	15.4		9.3	1.3		4.2	95.3
36	Ky 104	72.2	17.1	9.1	17.4	1.5		4.4	94.2
37	AES 805	69.6	15.7		3.0	1.3		3.8	92.0
38	Funk G-144	71.3	15.6		4.7	1.0		3.2	83.1
39	Ky 103	64.2	15.2		9.1	1.5	0.3	4.0	88.1
40	Stull 101Y	72.9	15.1		4.6	1.5	0.3	3.9	97.5
41	Funk G-134	77.9	15.6	0.3	5.0	1.8		3.9	95.3
42	P.A.G. 633W	73.4	17.4	1.5	5.6	1.8		4.1	93.6
43	Pioneer 300	66.0	14.6	2.6	8.7	2.0		3.8	86.4
44	Ky 204	66.7	16.7	2.6	4.9	1.3		3.4	96.4
45	Pioneer 302	67.5	17.7	1.0	4.2	1.3		3.7	86.7
46	P.A.G. 444	70.8	15.8	0.3	1.7	1.3		3.7	96.4
47	Funk G-706	73.4	16.4	2.0	10.8	1.5		3.7	95.0
48	DeKalb 898	61.6	15.9		5.2	2.0		4.1	91.1
49	Ky 106A	75.5	16.5	0.3	7.5	1.3		4.0	96.4
50	US 13	68.9	15.1		14.4	1.8	0.3	4.0	92.8
51	Bartlett & O'Bryan Y-120	74.9	15.6	2.4	6.6	1.5		3.8	93.1
52	DeKalb 875	70.3	14.5		10.5	1.5	0.3	3.6	92.8
53	Pioneer 309A	67.5	19.6		1.5	1.3		4.0	92.2
54	Funk G-91	74.7	16.5		6.6	1.5	0.3	3.8	92.0
55	Ky 203	58.9	15.5		19.7	1.5		4.1	95.8
56	Oh L51	68.2	14.7	5.3	3.8	1.0	0.3	3.2	94.5
	Mean	69.4	15.8	1.1	7.6	1.5	0.1	3.8	92.1

Table 6. Summary of agronomic data recorded on commercially available hybrids compared in Experiments 4, 5 and 6 grown in Eastern Kentucky in 1956.

Entry No.	Pedigree	Acre Yield bu.	Moist %	50 % Silked	Lodging % Root	Lodging % Stalk	Corn Borer L. F.	Disease Rating	Dropped Ears %	Ear ht. grade	Stand %
01	A E S 801	84.3	16.9	22.5		2.4	2.8	2.9		3.5	88.8
02	DeKalb 925	101.0	19.9	25.3	1.3	5.9	3.8	1.7		4.0	92.7
03	Cardinal 9	93.3	20.9	23.8		4.0	3.3	2.3		3.5	90.6
04	Broadbent 402	97.4	18.8	21.8	0.3	2.4	2.3	2.0		3.9	88.5
05	US 523 W	100.6	20.0	25.0		7.7	3.0	1.6		3.7	90.3
06	Ky 105	108.2	20.1	25.3	0.3	3.6	2.8	1.9		4.0	92.4
07	Stull 200Y	90.9	18.0	21.5	0.7	1.7	3.0	2.0		3.7	90.0
08	Ohio L41	99.4	18.4	19.3	0.3	1.9	1.8	2.0		3.6	95.7
09	P. A. G. 631W	100.3	20.5	24.8	0.3	6.3	3.3	1.7	0.3	3.8	91.2
10	Broadbent 402A	99.6	24.5	27.5	4.8	4.1	2.0	1.3		4.3	87.9
11	Hagan H-7	95.6	18.8	22.8		2.5	2.8	1.3		3.9	85.7
12	Ind. 844D	86.8	19.6	20.8		7.6	3.0	2.4		3.7	88.2
13	Pioneer 342A	83.0	16.4	17.3		2.4	3.5	2.6		3.4	87.0
14	DeKalb 893	100.2	23.5	26.3	3.7	12.9	1.0	2.0		4.1	89.4
15	DeKalb 1002	97.5	19.4	23.8	0.3	10.5	3.5	2.1		3.8	92.7
16	Ind. 750B	92.3	19.8	23.3	0.3	6.8	2.5	1.6		4.0	89.7
17	Pioneer 505	100.8	19.5	27.3		2.7	3.3	1.3		4.1	89.4
18	Broadbent 337	101.3	17.0	25.0	3.2	7.1	4.0	1.6		3.9	94.2
19	Stull 100Y	97.5	19.1	22.0		2.7	3.0	1.9		3.8	90.6
20	Meacham M5	104.3	19.5	23.3	0.3	3.8	3.5	1.6		3.7	96.1
21	DeKalb 805	104.0	18.5	20.8		1.0	3.3	1.1		3.6	94.8
22	Ky 106	93.7	18.4	25.8		12.3	3.8	2.0		4.0	83.5
23	Ky 102	99.9	20.1	26.0	0.7	18.6	2.0	2.0		4.2	89.4
24	Stull 400W	98.0	20.0	23.5	1.1	4.2	1.8	1.7	0.4	4.0	85.7
25	P. A. G. 347	79.2	20.5	20.0	0.3	2.7	2.5	2.4		3.6	90.3
26	Pioneer 301A	96.6	17.6	21.8	1.0	1.4	4.3	2.3	0.3	3.6	87.0
27	P. A. G. 401	96.2	17.3	22.0		4.5	2.5	2.6		3.9	94.2
28	DeKalb 811	86.9	18.3	21.8	0.7	8.1	2.5	2.9		3.6	89.4
29	Pioneer 338A	90.5	17.8	22.3		3.0	3.8	1.6		3.7	90.6
30	Pioneer 329	84.7	20.8	20.0		2.6	4.3	2.0		3.7	93.3
31	Meacham M33 Y	92.6	19.4	19.3		3.4	1.8	1.7		3.6	90.0
32	Funk G-512W	104.9	20.6	25.0	2.3	8.6	2.8	2.0		4.2	91.5
33	Bartlett & O'Bryan W23	95.3	20.0	24.5		3.0	3.3	2.3		3.6	92.1
34	DeKalb 803	83.0	18.9	21.0		3.7	3.0	2.0		3.6	90.9
35	Broadbent 235A	94.1	20.5	25.0		6.8	2.0	1.6		4.0	85.1
36	Ky 104	104.6	22.1	27.3	4.4	20.9	2.8	2.1	0.3	4.2	90.0
37	AES 805	102.0	19.0	20.3	0.3	1.3	2.0	1.6		3.6	91.8
38	Funk G-144	95.6	20.5	21.5		1.0	2.8	1.4		3.5	89.1
39	Ky 103	86.3	18.6	24.3	1.0	10.7	2.3	2.3		3.9	90.9
40	Stull 101Y	110.8	18.7	22.3		3.2	3.3	2.1		4.0	95.4
41	Funk G-134	93.5	19.2	22.5		1.7	3.0	1.6		3.7	88.8
42	P. A. G. 633W	101.1	22.2	24.8	0.7	4.0	3.8	1.9		4.0	90.9
43	Pioneer 300	97.6	17.0	20.5	0.7	6.3	3.0	2.7		3.9	90.9
44	Ky 204	96.6	19.6	24.3		2.0	3.3	2.1		3.6	88.8
45	Pioneer 302	98.8	20.4	23.5		2.6	2.8	2.1	0.3	3.7	91.8
46	P. A. G. 444	92.7	19.9	21.3		1.4	1.8	2.1		3.6	87.3
47	Funk G-706	98.2	20.5	22.0	0.3	5.9	3.3	1.9		3.9	87.6
48	DeKalb 898	89.2	18.5	23.0		6.9	4.0	2.3		3.8	87.6
49	Ky 106A	99.0	19.0	22.8		5.5	3.0	2.0	0.3	3.9	88.5
50	US 13	93.3	19.1	21.5	0.7	9.8	2.3	2.7		4.0	90.0
51	Bartlett& O'Bryan Y-120	101.0	19.5	22.8		3.6	3.5	2.1		3.8	93.3
52	DeKalb 875	96.9	19.7	23.0		8.2	3.3	2.0		3.7	92.7
53	Pioneer 309A	101.5	25.3	24.8		1.0	2.5	1.1		4.0	92.4
54	Funk G-91	96.9	18.1	20.5		4.7	3.8	1.6		3.6	90.6
55	Ky 203	96.1	20.5	25.8	1.3	8.9	3.8	1.3	0.3	4.0	91.8
56	Oh L51	87.1	18.6	17.3		0.7	1.5	2.0	1.0	3.3	89.7
	Mean	95.9	19.6	22.9	0.5	5.4	2.9	1.3	0.1	3.8	90.6

Table 7. Average agronomic data recorded on commercially available hybrids compared in Experiment 1 grown near Wickliffe, Kentucky in 1956.

Entry No.	Pedigree	Acre Yield %	Moist %	Lodging % Root	Lodging % Stalk	Disease Rating	Ear ht. grade	Stand %
01	AES 801	79.5	13.3		5.2	1.5	3.5	95.8
02	DeKalb 925	84.7	15.9	6.9	10.3	1.0	4.0	96.7
03	Cardinal 9	76.4	16.3		0.0	1.8	4.0	84.2
04	Broadbent 402	82.6	14.3		8.8	1.3	4.3	94.2
05	US 523W	72.3	15.2		15.0	1.5	4.0	94.2
06	Ky 105	85.6	14.9		15.5	1.8	4.5	96.7
07	Stull 200Y	78.8	16.1		2.0	1.5	3.3	81.7
08	Ohio L41	71.6	14.4		22.1	1.8	3.3	94.2
09	P.A.G. 631W	80.9	15.4	1.8	29.4	1.5	4.0	90.8
10	Broadbent 402A	58.0	15.5		4.3	1.3	5.3	95.8
11	Hagan H-7	74.2	13.5	4.3	8.7	1.3	3.8	95.8
12	Ind. 844D	71.6	15.0		25.2	1.5	3.3	92.5
13	Pioneer 342A	71.7	14.5	2.6	17.4	1.8	3.5	95.8
14	DeKalb 893	72.4	16.8	4.0	5.9	1.3	4.3	84.2
15	DeKalb 1002	82.4	15.5		36.5	2.0	4.3	95.8
16	Ind. 750B	72.6	16.9		0.0	1.5	3.5	54.2
17	Pioneer 505	73.6	15.6	8.8	7.9	1.5	4.8	95.0
18	Broadbent 337	77.1	17.2	16.5	7.3	0.8	4.0	90.8
19	Stull 100Y	76.4	14.6		3.7	1.5	3.3	90.8
20	Meacham M5	84.2	15.1	10.2	11.9	1.0	4.0	98.3
21	DeKalb 805	83.3	14.2		0.0	1.0	3.0	72.5
22	Ky 106	81.4	14.5	5.4	15.3	1.8	4.0	92.5
23	Ky 102	81.8	16.5	6.0	22.4	1.0	5.0	96.7
24	Stull 400W	81.2	14.6	1.8	5.5	1.5	4.3	91.7
25	P.A.G. 347	64.5	14.3		14.5	1.0	3.0	91.7
25	Pioneer 301A	79.4	14.4		3.1	2.0	3.0	80.0
26	P.A.G. 401	81.6	15.0	7.0	17.5	2.3	3.5	95.0
28	Dekalb 811	73.2	14.4		13.5	1.8	3.5	86.7
29	Pioneer 338A	74.6	14.0	2.7	7.1	1.5	3.5	94.2
30	Pioneer 329	77.9	13.9	1.7	11.7	1.8	3.0	100.0
31	Meacham M33Y	79.1	15.4	7.1	8.0	1.5	3.5	94.2
32	Funk G-512W	83.7	15.9	5.9	6.9	1.5	4.5	84.2
33	Bartlett & O'Bryan W23	72.0	16.3	2.0	9.9	1.0	3.3	84.2
34	DeKalb 803	70.3	14.9	3.4	21.2	1.3	3.3	98.3
35	Broadbent 235A	77.2	14.3		9.6	1.3	4.3	95.0
36	Ky 104	75.1	16.2	19.1	24.3	1.5	4.5	95.8
37	AES 805	81.6	14.3		6.0	1.3	4.0	96.7
38	Funk G-144	75.2	14.2		11.4	1.0	3.3	87.5
39	Ky 103	72.2	14.9		13.7	1.5	3.8	79.2
40	Stull 101Y	80.6	15.0		6.1	1.5	3.8	95.8
41	Funk G-134	86.8	14.9	0.9	5.3	1.8	4.0	95.0
42	P.A.G. 633W	85.4	16.8	4.5	5.4	1.8	4.5	93.3
43	Pioneer 300	55.1	14.9	7.7	19.8	2.0	3.8	75.8
44	Ky 204	77.5	15.5	5.2	9.6	1.3	3.5	95.8
45	Pioneer 302	77.2	15.6	2.8	6.5	1.3	3.8	90.0
46	P.A.G. 444	72.2	16.4	0.9	1.7	1.3	4.0	95.8
47	Funk G-706	80.1	16.3	6.1	13.0	1.5	3.8	95.8
48	DeKalb 898	71.1	15.6		2.7	2.0	4.0	91.7
49	Ky 106A	83.9	16.8	0.9	7.9	1.3	4.0	95.0
50	US 13	79.8	14.2		28.3	1.8	4.0	94.2
51	Bartlett&O'Bryan Y-120	84.0	14.2	7.0	12.2	1.5	3.5	95.8
52	DeKalb 875	79.5	13.9		23.3	1.5	3.8	96.7
53	Pioneer 309A	59.1	16.3		1.8	1.3	4.0	92.5
54	Funk G-91	79.8	14.8		17.9	1.5	3.5	88.3
55	Ky 203	68.1	14.6		18.4	1.5	4.3	95.0
56	Oh L51	78.3	14.6	15.3	8.5	1.0	3.0	98.3
	Mean	76.6	15.2	3.0	11.6	1.5	3.8	91.4

Difference necessary for significance at 5% level 16.2 bu.

Table 8. Average agronomic data recorded on commercially available hybrids compared in Experiment 2 grown near Owensboro, Kentucky in 1956.

Entry No.	Pedigree	Acre Yield bu.	Moist %	Lodging % Root	Lodging % Stalk	Ear ht. grade	Stand %
01	AES 801	66.0	15.0		0.0	3.0	91.7
02	DeKalb 925	63.9	17.4		2.7	3.8	93.3
03	Cardinal 9	63.7	16.8	1.7	2.5	4.0	100.0
04	Broadbent 402	69.8	15.5		1.8	3.8	93.3
05	US 523 W	68.3	17.7		2.6	3.0	96.7
06	Ky 105	84.5	17.9		1.7	4.0	96.7
07	Stull 200 Y	78.9	16.2		3.5	3.8	95.0
08	Ohio L41	74.1	15.7		1.8	3.5	90.8
09	P.A.G. 631W	72.8	16.7		4.7	3.8	89.2
10	Broadbent 402A	64.3	16.2		5.5	4.8	91.7
11	Hagan H-7	75.6	15.3		3.5	3.5	94.2
12	Ind. 844D	68.2	15.1		3.7	3.3	90.8
13	Pioneer 342A	72.4	14.4		4.2	3.5	98.3
14	DeKalb 893	70.4	19.1		2.8	4.3	90.0
15	DeKalb 1002	66.0	16.9		14.0	4.0	95.0
16	Ind. 750B	60.8	16.9		2.8	3.8	88.3
17	Pioneer 505	57.7	16.3		0.9	5.0	95.8
18	Broadbent 337	68.8	17.7		2.7	4.0	93.3
19	Stull 100Y	58.2	15.6		1.7	3.5	95.8
20	Meacham M5	76.0	17.7		1.7	4.0	96.7
21	DeKalb 805	73.2	15.0		1.7	3.3	98.3
22	Ky 106	69.1	17.1		1.9	3.8	90.0
23	Ky 102	70.0	16.8		8.5	4.5	98.3
24	Stull 400 W	70.7	16.6		1.8	4.3	93.3
25	P.A.G. 347	68.6	15.4		1.8	3.5	94.2
26	Pioneer 301A	68.7	15.7		1.8	3.3	94.2
27	P.A.G. 401	69.7	15.3		5.2	3.3	96.7
28	DeKalb 811	68.5	14.1		4.2	3.3	99.2
29	Pioneer 338A	72.9	15.0		5.1	3.3	97.5
30	Pioneer 329	69.3	15.7		0.9	3.3	95.8
31	Meacham M33Y	62.8	15.0		2.0	4.0	85.0
32	Funk G-512W	77.6	17.2		7.6	4.8	99.2
33	Bartlett & O'Bryan W23	59.1	17.9		3.5	3.5	95.0
34	DeKalb 803	59.2	16.7		0.9	3.8	97.5
35	Broadbent 235A	69.4	16.2		4.3	4.3	96.7
36	Ky 104	79.9	17.2	3.5	7.0	4.8	95.8
37	AES 805	63.4	16.4		0.0	3.5	94.2
38	Funk G-144	69.9	16.5		1.0	3.0	84.2
39	Ky 103	61.8	16.5		2.6	4.0	95.0
40	Stull 101Y	76.0	16.3		2.5	4.0	98.3
41	Funk G-134	79.3	17.0		2.7	3.8	94.2
42	P.A.G. 633 W	67.9	18.1		4.3	4.0	96.7
43	Pioneer 300	72.5	15.4	0.9	3.5	4.0	95.0
44	Ky 204	57.4	18.7		0.0	3.5	96.7
45	Pioneer 302	65.9	19.3		1.0	3.8	85.0
46	P.A.G. 444	68.0	16.2		1.7	3.3	96.7
47	Funk G-706	74.6	17.7		4.4	3.8	94.2
48	DeKalb 898	56.7	15.9		3.4	4.3	96.7
49	Ky 106A	77.3	16.5		4.3	4.0	96.7
50	US 13	69.2	16.1		2.9	4.0	86.7
51	Bartlett & O'Bryan Y-120	73.1	16.0		0.9	4.0	90.8
52	DeKalb 875	74.3	14.9		3.6	3.3	93.3
53	Pioneer 309A	79.7	20.4		0.0	4.0	95.0
54	Funk G-91	75.8	18.0		0.0	4.0	91.7
55	Ky 203	51.4	16.1		6.8	4.0	98.3
56	Oh L51	68.3	14.5		0.9	3.3	96.7
	Mean	69.1	16.5	0.1	3.0	3.8	94.3

Difference necessary for significance at 5% level 11.6 bu.

Table 9. Average agronomic data recorded on commercially available hybrids compared in Experiment 3 grown near Hopkinsville, Kentucky in 1956.

Entry No.	Pedigree	Acre Yield bu.	Moist %	Lodging % Root	Lodging % Stalk	Ear ht. grade	Stand %
01	AES 801	54.5	12.6		4.8	3.5	86.7
02	DeKalb 925	61.9	15.2		18.9	4.0	92.5
03	Cardinal 9	67.7	16.3		3.8	3.8	88.3
04	Broadbent 402	63.0	15.1		1.9	4.0	88.3
05	US 523 W	64.5	16.3		10.3	4.0	80.8
06	Ky 105	63.6	17.2		9.0	4.0	92.5
07	Stull 200Y	58.4	15.0		1.4	3.8	61.7
08	Ohio L41	61.7	14.4		2.0	3.5	85.0
09	P.A.G. 631W	72.6	16.2		9.0	3.8	91.7
10	Broadbent 402A	64.1	18.1		4.8	4.5	86.7
11	Hagan H-7	64.8	15.2		3.7	4.0	90.0
12	Ind. 844D	66.4	16.0		5.3	3.5	94.2
13	Pioneer 342A	58.6	13.1		0.9	3.3	90.0
14	DeKalb 893	63.4	18.6		13.0	4.3	90.0
15	DeKalb 1002	59.6	18.0		22.1	4.0	94.2
16	Ind. 750B	63.6	17.3		7.6	3.5	87.5
17	Pioneer 505	57.8	15.8		9.7	4.0	94.2
18	Broadbent 337	59.7	16.5	0.9	25.2	3.8	95.8
19	Stull 100 Y	63.9	14.4		1.8	4.0	95.0
20	Meacham M5	59.4	14.6		14.8	3.8	95.8
21	DeKalb 805	69.4	14.1		1.0	3.8	86.7
22	Ky 106	62.8	14.1		10.8	4.0	92.5
23	Ky 102	53.8	15.0		36.9	4.0	92.5
24	Stull 400 W	64.7	14.8		10.2	4.0	90.0
25	P.A.G. 347	61.2	14.1		3.6	3.5	92.5
26	Pioneer 301A	54.1	15.0		4.6	3.0	90.8
27	P.A.G. 401	59.9	15.2		2.7	4.0	93.3
28	DeKalb 811	55.6	14.0		1.7	3.3	96.7
29	Pioneer 338A	64.1	14.8		4.7	3.0	88.3
30	Pioneer 329	64.4	13.0		0.9	3.0	88.3
31	Meacham M33Y	59.3	14.9		11.8	3.3	77.5
32	Funk G-512W	67.7	16.6	2.0	5.0	4.0	88.3
33	Bartlett & O'Bryan W23	63.3	14.5		2.5	3.8	98.3
34	DeKalb 803	55.8	14.6		8.6	3.8	96.7
35	Broadbent 235A	64.4	15.8		14.2	4.0	94.2
36	Ky 104	61.6	17.9	4.6	21.1	4.0	90.8
37	AES 805	63.7	16.5		2.9	4.0	85.0
38	Funk G-144	68.8	16.1		1.8	3.5	92.5
39	Ky 103	58.7	14.1		12.0	4.3	90.0
40	Stull 101Y	62.1	14.1		5.1	4.0	98.3
41	Funk G-134	67.6	14.8		6.9	4.0	96.7
42	P.A.G. 633W	67.0	17.2		7.3	3.8	90.8
43	Pioneer 300	70.3	13.6		4.7	3.8	88.3
44	Ky 204	65.3	16.0	2.6	5.2	3.3	96.7
45	Pioneer 302	59.4	18.3		4.9	3.8	85.0
46	P.A.G. 444	72.1	14.8		1.7	4.0	96.7
47	Funk G-706	65.4	15.2		14.9	3.8	95.0
48	DeKalb 898	56.9	16.1		9.8	4.0	85.0
49	Ky 106 A	65.4	16.1		10.3	4.0	97.5
50	US 13	57.8	15.1		11.0	4.0	97.5
51	Bartlett & O'Bryan Y-120	67.7	16.7		6.3	4.0	92.5
52	DeKalb 875	57.1	14.8		3.8	3.8	88.3
53	Pioneer 309A	63.6	22.2		2.8	4.0	89.2
54	Funk G-91	68.4	16.6		2.6	4.0	95.8
55	Ky 203	57.1	15.8		34.5	4.0	94.2
56	Oh L51	56.1	15.1		1.9	3.3	88.3
	Mean	62.6	15.6	0.2	8.2	3.8	90.7

Difference necessary for significance at 5% level 10.0 bu.

Table 10. Average agronomic data recorded on commercially available hybrids compared in Experiment 4 grown near Greensburg, Kentucky in 1956.

Entry No.	Pedigree	Acre Yield bu.	Moist %	Lodging % Root	Lodging % Stalk	Disease Rating	Dropped Ears %	Ear ht. grade	Stand %
01	AES 801	88.1	14.0		0.0	2.7		4.0	96.7
02	DeKalb 925	110.7	18.6	3.4	6.9	1.3		4.0	96.7
03	Cardinal 9	101.5	19.2		6.3	2.0		4.0	88.9
04	Broadbent 402	100.1	17.5		2.6	1.7		4.0	84.4
05	US 523 W	108.6	17.8		12.0	1.0		4.0	92.2
06	Ky 105	112.9	19.2		2.5	1.7		4.0	90.0
07	Stull 200Y	100.4	16.5	2.3	0.0	2.3		4.0	96.7
08	Ohio L41	100.7	16.7		3.5	2.0		4.0	94.4
09	P.A.G. 631W	107.5	19.2	1.3	9.3	1.7		4.0	83.3
10	Broadbent 402A	101.3	20.8		8.6	1.7		5.0	90.0
11	Hagan H-7	99.7	17.3		2.3	1.3		4.3	95.6
12	Ind. 844D	95.2	17.0		6.5	2.0		3.7	85.6
13	Pioneer 342A	94.0	15.9		3.5	2.0		4.0	95.6
14	DeKalb 893	106.1	20.8	1.2	29.8	2.3		4.7	93.3
15	DeKalb 1002	96.7	17.5		15.3	2.3		4.0	94.4
16	Ind. 750B	87.4	17.0		9.9	1.7		4.0	90.0
17	Pioneer 505	109.1	19.2		1.2	1.7		4.3	91.1
18	Broadbent 337	102.9	18.6	4.7	8.1	1.3		4.0	95.6
19	Stull 100Y	98.2	17.2		3.7	2.0		4.0	90.0
20	Meacham M5	116.7	18.4		3.4	1.7		4.0	96.7
21	DeKalb 805	110.1	16.4		0.0	1.0		4.0	95.6
22	Ky 106	105.6	17.4		15.1	2.0		4.0	95.6
23	Ky 102	103.1	18.6		25.0	2.3		4.3	84.4
24	Stull 400W	113.5	19.2		4.2	1.3		4.0	78.9
25	P.A.G. 347	94.7	17.3		2.4	1.7		4.0	93.3
26	Pioneer 301A	105.1	16.9		2.5	2.0		4.0	87.8
27	P.A.G. 401	100.6	16.9		2.4	2.7		4.0	92.2
28	DeKalb 811	92.6	16.7		14.8	2.7		3.3	97.8
29	Pioneer 338A	100.4	16.0		2.4	1.0		4.0	93.3
30	Pioneer 329	97.2	16.4		1.1	2.0		4.0	96.7
31	Meacham M33Y	89.9	16.0		8.5	1.3		4.0	91.1
32	Funk G-512W	109.9	19.0	2.2	11.2	1.7		4.7	98.9
33	Bartlett & O'Bryan W23	96.7	17.7		4.5	2.3		3.7	98.9
34	DeKalb 803	91.8	17.2		2.3	1.7		4.0	95.6
35	Broadbent 235 A	102.0	18.4		12.8	1.3		4.0	86.7
36	Ky 104	99.5	19.4	2.4	27.7	2.0		4.7	92.2
37	AES 805	101.5	17.2	1.2	0.0	1.7		4.0	95.6
38	Funk G-144	98.8	18.7		2.5	1.3		4.0	88.9
39	Ky 103	88.4	17.3		19.3	2.3		4.0	92.2
40	Stull 101Y	116.9	16.9		4.6	2.0		4.0	96.7
41	Funk G 134	103.4	17.4		2.3	1.7		4.0	95.6
42	P.A.G. 633 W	105.5	19.8		9.0	2.0		4.0	86.7
43	Pioneer 300	103.5	16.0		8.5	2.7		4.0	91.1
44	Ky 204	99.2	17.8		7.1	2.0		4.0	93.3
45	Pioneer 302	101.1	18.6		3.4	2.7		4.0	98.9
46	P.A.G. 444	98.1	18.9		0.0	1.3		4.0	91.1
47	Funk G-706	105.3	20.0		11.0	2.0		4.0	91.1
48	DeKalb 898	96.2	17.3		7.4	2.0		4.0	90.0
49	Ky 106A	107.7	16.8		4.5	2.0	1.1	4.0	97.8
50	US 13	97.4	20.2		5.9	2.7		4.0	94.4
51	Bartlett & O'Bryan Y-120	101.8	18.1		6.9	2.3		4.0	96.7
52	DeKalb 875	101.1	20.5		11.5	2.3		4.0	96.7
53	Pioneer 309A	101.2	22.7		0.0	1.3		4.0	90.0
54	Funk G-91	109.8	17.7		7.6	1.0		4.0	87.8
55	Ky 203	105.9	19.3		14.5	1.3		4.0	92.2
56	Oh L51	94.3	17.4		0.0	1.7	3.4	3.7	97.8
	Mean	101.6	18.0	0.3	7.1	1.9	0.1	4.0	92.6

Difference necessary for significance at 5% level 16.9 bu.

Table 11. Average agronomic data recorded on commercially available hybrids compared in Experiment 5-grown near Lexington Kentucky, in 1956.

Entry No.	Pedigree	Acre Yield bu.	Moist %	50 % silked	Lodging % Root	Lodging % Stalk	Corn Borer L. F.	Dropped Ears %	Ear ht. grade	Stand %
01	AES 801	84.4	17.8	22.5		2.9	2.8		3.5	85.8
02	DeKalb 925	104.4	19.1	25.3	0.9	7.8	3.8		4.0	95.8
03	Cardinal 9	95.4	20.3	23.8		5.2	3.3		3.8	96.7
04	Broadbent 402	87.8	18.8	21.8		2.7	2.3		4.0	93.3
05	US 523 W	100.1	19.7	25.0		7.4	3.0		3.8	90.0
06	Ky 105	105.7	19.4	25.3	0.8	6.7	2.8		4.0	100.0
07	Stull 200Y	89.8	17.9	21.5		1.8	3.0		4.0	92.5
08	Ohio L41	101.0	17.6	19.3		1.7	1.8		3.8	96.7
09	P. A. G. 631W	102.2	20.5	24.8		9.5	3.3	0.9	3.8	96.7
10	Broadbent 402A	89.8	22.7	27.5	0.9	4.6	2.0		4.0	90.0
11	Hagan H-7	89.0	18.5	22.8		1.1	2.8		3.8	73.3
12	Ind. 844D	85.3	18.4	20.8		3.7	3.0		3.5	90.0
13	Pioneer 342A	76.1	16.4	17.3		2.1	3.5		3.3	80.8
14	DeKalb 893	95.7	22.1	26.3	2.7	8.8	1.0		3.8	94.2
15	DeKalb 1002	95.4	18.4	23.8		5.3	3.5		3.8	94.2
16	Ind. 750B	81.3	19.1	23.3	0.9	9.9	2.5		4.0	92.5
17	Pioneer 505	80.6	17.5	27.3	0.0	5.5	3.3		4.0	90.8
18	Broadbent 337	88.7	19.1	25.0	0.9	11.8	4.0		3.8	91.7
19	Stull 100Y	95.7	17.9	22.0		4.5	3.0		4.0	93.3
20	Meacham M5	95.4	19.7	23.3	0.9	7.7	3.5		3.5	97.5
21	DeKalb 805	103.6	17.8	20.8		0.8	3.3		3.8	99.2
22	Ky 106	81.5	18.2	25.8		11.5	3.8		4.0	86.7
23	Ky 102	96.8	18.7	26.0	0.9	18.8	2.0		4.3	93.3
24	Stull 400W	96.5	20.1	23.5	2.7	6.3	1.8	0.9	4.0	93.3
25	P. A. G. 347	72.6	27.2	20.0	0.9	2.7	2.5		3.8	91.7
26	Pioneer 301A	94.2	17.6	21.8	2.8	0.9	4.3	0.9	3.5	90.8
27	P. A. G. 401	97.4	17.3	22.0		7.0	2.5		3.8	95.0
28	DeKalb 811	90.4	19.9	21.8		6.7	2.5		3.8	87.5
29	Pioneer 338A	87.5	19.0	22.3		5.3	3.8		3.8	94.2
30	Pioneer 329	66.9	28.4	20.0		6.3	4.3		3.5	92.5
31	Meacham M33Y	97.9	19.9	19.3		1.8	1.8		3.5	90.8
32	Funk G-512W	100.6	19.7	25.0	2.8	9.3	2.8		4.0	90.0
33	Bartlett & O'Bryan W23	100.9	19.5	24.5		4.3	3.3		3.5	96.7
34	DeKalb 803	83.5	17.6	21.0		6.0	3.0		3.5	97.5
35	Broadbent 235A	90.2	21.3	25.0		5.5	2.0		4.0	90.8
36	Ky 104	103.2	20.6	27.3	10.5	29.5	2.8	1.0	4.0	87.5
37	AES 805	103.7	18.4	20.3		3.6	2.0		3.8	93.3
38	Funk G-144	90.9	21.1	21.5		0.9	2.8		3.8	90.0
39	Ky 103	88.7	18.1	24.3	2.6	10.5	2.3		4.0	95.0
40	Stull 101Y	116.3	17.8	22.3		1.7	3.3		4.0	100.0
41	Funk G-134	90.0	18.5	22.5		2.7	3.0		3.8	94.2
42	P. A. G. 633W	102.8	19.0	24.8	0.9	4.4	3.8		4.0	94.2
43	Pioneer 300	103.4	17.3	20.5		8.6	3.0		3.8	96.7
44	Ky 204	92.1	19.9	24.3		0.0	3.3		3.5	92.5
45	Pioneer 302	104.1	19.3	23.5		4.3	2.8	0.9	4.0	96.7
46	P. A. G. 444	104.9	18.1	21.3		1.8	1.8		3.8	92.5
47	Funk G-706	89.7	19.5	22.0		4.0	3.3		3.8	84.2
48	DeKalb 898	88.8	17.8	23.0		4.5	4.0		3.5	91.7
49	Ky 106 A	91.7	18.4	22.8		12.9	3.0		4.0	77.5
50	US 13	94.0	17.5	21.5		17.9	2.3		4.0	88.3
51	Bartlett & O'Bryan Y-120	100.6	18.1	22.8		3.5	3.5		3.5	95.0
52	DeKalb 875	95.6	18.8	23.0		9.9	3.3		3.8	92.5
53	Pioneer 309A	91.2	26.5	24.8		2.6	2.5		4.0	95.0
54	Funk G-91	86.9	17.9	20.5		5.7	3.8		3.5	88.3
55	Ky 203	87.3	17.8	25.8	2.7	11.8	3.8	0.9	4.0	91.7
56	Oh L51	91.0	18.2	17.3		0.9	1.5		3.3	91.7
	Mean	93.2	19.3	22.9	0.6	6.2	2.9	0.1	3.8	92.0

Difference necessary for significance at 5% level 11.9 bu.

Table 12. Average agronomic data recorded on commercially available hybrids compared in Experiment 6 grown near Quicksand, Kentucky in 1956.

Entry No.	Pedigree	Acre Yield	Moist	Lodging Root	Lodging Stalk	Disease Rating	Ear ht. grade	Stand
		%	%	%	%			%
01	AES 801	80.5	18.8		3.9	3.0	3.3	85.8
02	DeKalb 925	87.9	22.1		2.9	2.0	4.0	86.7
03	Cardinal 9	83.1	23.2		1.0	2.5	3.0	85.8
04	Broadbent 402	104.3	20.4	1.0	1.9	2.3	3.8	86.7
05	US 523W	93.2	22.6		4.7	2.0	3.5	89.2
06	Ky 105	105.9	21.7		1.0	2.0	4.0	86.7
07	Stull 200 Y	82.4	19.5		3.0	1.8	3.3	82.5
08	Ohio L41	96.6	21.0	0.9	0.9	2.0	3.3	95.8
09	P. A. G. 631W	91.3	21.9		0.9	1.8	3.8	91.7
10	Broadbent 402A	107.7	29.9	12.9	0.9	1.0	4.0	84.2
11	Hagan H-7	98.1	20.5		3.7	1.3	3.8	90.8
12	Ind. 844D	79.8	23.5		12.3	2.8	4.0	88.3
13	Pioneer 342A	78.8	16.8		1.9	3.0	3.0	86.7
14	DeKalb 893	98.7	27.7	7.1	3.1	1.8	4.0	81.7
15	DeKalb 1002	100.5	22.4	0.9	12.0	2.0	3.8	90.0
16	Ind. 750B	108.2	23.2		1.0	1.5	4.0	86.7
17	Pioneer 505	112.7	21.7		1.0	1.0	4.0	86.7
18	Broadbent 337	112.3	13.2	4.3	1.7	1.8	4.0	95.8
19	Stull 100 Y	98.5	22.1		0.0	1.8	3.5	88.3
20	Meacham M5	100.8	20.3		0.0	1.5	3.8	94.2
21	DeKalb 805	98.2	21.4		1.9	1.3	3.3	90.0
22	Ky 106	94.1	19.6		10.8	2.0	4.0	85.0
23	Ky 102	99.9	23.1	0.9	14.0	1.8	4.0	89.2
24	Stull 400W	84.0	20.8		2.0	2.0	4.0	83.3
25	P. A. G. 347	70.2	16.9		2.9	3.0	3.3	86.7
26	Pioneer 301A	90.6	18.3		1.0	2.5	3.5	82.5
27	P. A. G. 401	90.6	17.6		3.5	2.5	4.0	95.0
28	DeKalb 811	77.6	18.3	2.0	3.9	3.0	3.8	85.0
29	Pioneer 338A	83.6	18.3		1.0	2.0	3.5	85.0
30	Pioneer3329	89.9	17.6		0.0	2.0	3.8	91.7
31	Meacham M33Y	90.1	22.2		0.0	2.0	3.5	88.3
32	Funk G 512W	104.1	23.1	1.9	5.7	2.3	4.0	87.5
33	Bartlett & O'Bryan W23	88.2	22.8		0.0	2.3	3.8	82.5
34	DeKalb 803	73.7	21.8		2.1	2.3	3.5	80.8
35	Broadbent 235A	90.0	21.7		3.2	1.8	4.0	78.3
36	Ky 104	111.1	26.4		7.3	2.3	4.0	90.8
37	AES 805	100.9	21.6		0.0	1.5	3.3	87.5
38	Funk G-144	97.2	21.7		0.0	1.5	3.0	88.3
39	Ky 103	81.9	20.5		3.9	2.3	3.8	85.8
40	Stull 101Y	99.3	21.4		3.7	2.3	4.0	90.0
41	Funk G-134	87.2	21.7		0.0	1.5	3.5	78.3
42	P. A. G. 633W	94.9	27.7	0.9	0.0	1.8	4.0	90.8
43	Pioneer 300	86.0	17.6	2.0	2.0	2.8	4.0	85.0
44	Ky 204	93.4	21.0		0.0	2.3	3.5	81.7
45	Pioneer 302	91.3	23.4		0.0	1.8	3.3	81.7
46	P. A. G. 444	75.1	22.6		2.1	2.8	3.3	79.2
47	Funk G-706	99.7	22.1	0.9	3.8	1.8	4.0	88.3
48	DeKalb 898	82.5	20.3	0.0	9.2	2.5	4.0	81.7
49	Ky 106A	97.6	21.9	0.0	0.0	2.0	3.8	92.5
50	US 13	88.5	19.6	1.9	4.7	2.8	4.0	88.3
51	Bartlett&O'Bryan Y-120	100.6	22.2		0.9	2.0	4.0	89.2
52	DeKalb 875	93.9	19.9		3.7	1.8	3.5	90.0
53	Pioneer 309A	112.1	26.6		0.0	1.0	4.0	91.7
54	Funk G-91	93.9	18.8		1.8	2.0	3.5	95.0
55	Ky 203	95.2	24.3	0.9	1.8	1.3	4.0	91.7
56	Oh L51	76.1	20.2		1.0	2.3	3.0	81.7
	Mean	93.0	21.4	0.7	2.8	2.0	3.7	87.2

Difference necessary for significance at 5% level 15.1 bu.

SEED CORN BUYING TIPS

1. Buy adapted hybrids. Spoiled corn is wasted feed, food, and labor. Try early hybrids for late planting.

2. Buy two or more hybrids. Seasons vary and hybrids respond differently.

3. Try new hybrids. Improvements are constantly being made. Try new hybrids on a limited acreage the first year.

4. Buy from a reliable source. Local dealers and relia 'e firms want satisfied customers.

5. Be sure the hybrid is backed by research and field tests. Good hybrids are developed through years of breeding and testing. Ask the dealer!

6. High prices and high pressure don't prove a hybrid. Ask for proof!

7. Certified seed tags are a mark of quality. Look for the tag on the bag.

8. Check the grade. A bushel of medium-flat grade seed will plant more acres than a bushel of large grade seed.

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