Results of the KENTUCKY HYBRID CORN PERFORMANCE TESTS - 1955

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AGRICULTURAL EXPERIMENT STATION
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Experiment Station Hybrids Recommended for Kentucky

Yellow Hybrids

Ky 102
Ky 103
Ky 104 - Recommended for grain production in eastern Kentucky only. Recommended for silage use over the entire state.
US 13
Ind 844D
Ky 105 - Not available until 1957.
Ky 106 - Limited seed supply available for 1956 planting.

White Hybrids

Ky 203
US 523 W
Ind 750B
Ky 204 - Not available until 1957.

Ky 104 and Ky 204 were tested as Kentucky Experimental Hybrids 0228 and 0109 respectively. These hybrids were added to the recommended list in January 1955.

Ky 105 and Ky 106 were tested as Kentucky Experimental Hybrids 1005 and 1002 respectively. These hybrids were added to the recommended list in January 1956.

RESULTS OF THE KENTUCKY CORN PERFORMANCE TESTS IN 1955

J. F. Shane and F. A. Loeffel

The tests reported herein were designed primarily for the evaluation of experimental hybrids developed by the Kentucky Agricultural Experiment Station in its breeding program. There were also included experimental and commercially available hybrids developed by other state and federal agencies, several privately controlled hybrids, hybrids currently recommended for certification in Kentucky, and two open-pollinated varieties.

The planting arrangements provide a basis for adequate comparison between experimental and commercial hybrids, as well as for comparison within each classification. The test areas were chosen to sample the varying soil types, climates, and other conditions under which corn is grown in Kentucky. The locations of the various performance trials are indicated in Fig. 1.

Thirty-seven hybrids were tested during the 1955 growing season. The number of hybrids tested at individual locations ranged from 25 to 36. Performance records for the hybrids tested at each location are given in tables 2-9. Tests at Jeffersontown and Owensboro were abandoned.

Experimental Procedure

Cultural practices commonly followed in each community determined the spacing of hills and the number of plants per hill in each test. Such data, along with fertilizer treatment and date of planting and harvesting, are given in Table 1. The conditions within each test were maintained as uniformly as possible.

The entries in each test were compared on their performance in 2 x 10 hill plots. A simple lattice design of four replications was used at all locations. Seed of privately controlled commercial hybrids was purchased on the open market, while seed of state or federally controlled hybrids was obtained from the respective experiment stations or from growers of certified seed.

1. Yields are recorded as bushels per acre of shelled corn with 15.5 per cent moisture. Correction was made for missing hills but not for minor variations in stand.

2. Moisture at harvest. The percentage of moisture in the corn at harvest was obtained by sampling 15 to 20 ears from each of two or more replications. The average of the moisture determinations for each hybrid was used in calculating its yield.

3. Broken stalks. The percentages of broken stalks were determined by making a count of the stalks broken below the ear-bearing node. Root-lodged plants were determined by counting the plants leaning at an angle of 30 degrees or more. Plants erect at harvest are recorded as the difference between total plants and the sum of the root-lodged and broken.

4. Ear height was measured, as it is found to be important in relation to mechanical harvesting. Lower-eared hybrids are desirable for mechanical harvesting.

Interpretation of Data

The difference necessary to assure reasonable that inherent yield potential exists between varieties has been calculated and is given at the foot 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; however, small differences between any two hybrids are likely to be of little importance and should not be considered strongly indicative of a true difference.

Period of years results. Evaluation of hybrids for yield and standing ability over a period of years is more valuable than the results from a single year. Hybrids may be outstanding one year and undesirable another year. Results over a period of years tend to average these fluctuations. The recommendation of an experimental hybrid for certification and commercial production is dependent upon its continued excellence in several tests and seasons. Data on hybrids which have been tested in all locations for two or more years are presented in Table 10. US 523W continued to out-perform the older recommended hybrids.

Table 1. Cooperators, Location, Soil Type, Previous Cropping, Fertilizer Applied, Plant Spacing, and dates of Planting and Harvesting for the Yield Tests in the Eight Locations in Kentucky, 1955.

Cooperators	Location County	Soil Type	Previous Crop	Fertilizer Applied	Hill Spacing	Plants per Hill	Date Planted	Date Harvested
1. Kentucky Agr'l. Exp. Station	Lexington Fayette	Maury silt loam	Red clover	24 lbs. N 32 lbs. P_2O_5 92 lbs. K_2O	36" x 42"	3	May 5	Oct. 31
2. Pennyrile Grain Improvement Assoc.	Hopkinsville Christian	Silt loam	Lespedeza and weeds	1000 lbs. 8-8-8	42"x 42"	3	April 29	Oct. 18
3. Western Ky. Exp. Substation S. J. Lowry, L. M. Caldwell, Leo A. Link & H. R. Richards	Princeton Caldwell	Silt to clay loam-lime-stone origin	Tobacco	8 ton manure	42"x 42"	3	May 9	Sept. 21
4. Robinson Exp. Substation Roger Jones	Quicksand Breathitt	Sandy loam	Corn and Cover Crop	400 lbs. 0-20-20 & manure	36"x 36"	2	May 20	Oct. 4
5. Berea College C. O. Spillman	Berea Madison	Silt loam	Corn	700 lbs. 10-10-10 7 ton manure	36" x 36"	3	May 7	Oct. 8
6. W.A.Steinhauser	Morning View Kenton	Clay loam		15 ton manure			May 26	Nov. 4
7. C. A. Judd	Beattyville (Primrose) Lee	Silt loam	Corn		38"x 38"	3	June 6	Oct. 25
8. Dave Bennet	Vanceburg Lewis	Wheeling silt loam		300 lbs. 3-12-12 in the row			May 19	Nov. 21

Table 2. Performance Data on Uniform Hybrid Test, Fayette County, 1955.

Rank in Yield	Hybrid		Yield bu.per acre	Moisture %	Broken Stalks %	Root Lodged %	Erect Plants %	Stand %	Ear Height ins.	Date Silked
1	Ky 2109	(Exp)(W)	95.4	15.6	5.1	8.9	86.0	97.9	54	7/23
2	Ky 2105	(Exp)(W)	86.7	15.1	4.8	12.7	82.5	95.4	45	7/22
3	US 523 W	(W)	83.7	15.9	3.5	11.3	85.2	96.2	51	7/25
4	Ky 1005	(Exp)(Y)	83.7	15.7	6.4	7.2	86.4	98.3	52	7/26
5	Funk's G 134	(Y)	82.5	15.5	4.3	3.4	92.3	97.9	48	7/22
6	Pioneer 309 A	(Y)	82.5	16.1	2.1	1.3	96.6	97.5	48	7/26
7	Ky 2001	(Exp)(Y)	82.1	15.9	7.3	10.3	82.4	97.5	53	7/22
8	Pioneer 301 A	(Y)	81.7	14.4	10.3	12.5	77.2	96.7	45	7/23
9	Ky 2111	(Exp)(W)	80.9	14.8	7.7	10.5	81.8	91.7	47	7/23
10	Ky 0109	(Exp)(W)	80.5	16.6	5.8	11.1	83.1	94.2	47	7/23
11	Ky 2004	(Exp)(Y)	80.4	16.6	9.7	19.5	70.8	98.3	52	7/25
12	Ky 2106	(Exp)(W)	79.2	15.1	8.7	6.1	85.2	95.4	53	7/23
13	US 13	(Y)	78.4	14.6	11.1	1.3	87.6	97.5	52	7/21
14	Funk's G 512 W	(W)	78.2	15.9	9.2	16.6	74.2	95.4	57	7/24
15	Ind 844 D	(Y)	77.4	14.0	6.0	2.1	91.9	97.5	47	7/21
16	P.A.G. 401	(Y)	77.0	14.2	11.9	1.8	86.3	94.6	46	7/21
17	Ky 9105 B	(Exp)(W)	76.4	17.0	4.0	13.0	83.0	96.2	55	7/25
18	Ky 9107	(Exp)(W)	76.4	15.3	5.4	5.8	88.8	100.0	53	7/25
19	Funk's G 91	(Y)	76.2	15.4	6.7	1.8	91.5	93.3	44	7/23
20	Ky 2018	(Exp)(Y)	76.1	15.8	6.0	21.3	72.7	97.9	45	7/24
21	Ky 1002	(Exp)(Y)	75.6	14.9	11.0	2.5	86.5	98.7	48	7/23
22	Stull 400 W	(W)	75.5	15.2	6.5	12.2	81.3	95.8	48	7/24
23	Broadbent 402 Y	(Y)	74.9	15.6	5.5	14.9	79.6	97.9	49	7/23
24	Ky 104	(Y)	73.9	16.5	16.5	7.2	76.3	98.3	53	7/27
25	Supercrost 880	(Y)	7317	14.4	6.5	5.2	88.3	96.7	47	7/21
26	Broadbent 235 W	(W)	72.8	16.5	8.5	10.7	80.8	97.5	55	7/24
27	Ky 1110	(Exp)(W)	71.7	17.1	3.1	6.2	90.7	93.7	47	7/27
28	Stull 400 WA	(W)	70.9	15.1	7.4	5.2	87.4	96.2	52	7/25
29	Stull 100 Y	(Y)	70.0	15.3	6.8	3.0	90.2	97.9	53	7/21
30	Ky 0105	(Exp) (W)	69.9	15.9	7.0	12.6	80.4	95.8	53	7/24

Table 2, Cont'd.

Rank in Yield	Hybrid		Yield bu.per acre	Moisture %	Broken Stalks %	Root Lodged %	Erect Plants %	Stand %	Ear Height ins.	Date Silked
31	Ind. 750 B	(W)	69.6	16.0	8.5	4.9	86.6	93.3	48	7/23
32	Supercrost 700 A	(Y)	69.1	14.1	10.0	6.3	83.7	100.0	43	7/18
33	Ky 203	(W)	66.1	15.6	11.0	16.2	72.8	95.0	53	7/25
34	Ky 103	(Y)	64.2	15.4	17.0	3.9	79.1	95.4	46	7/23
35	Ky 102	(Y)	64.1	15.5	12.5	4.7	82.8	96.7	53	7/28
36	Ky 2030	(Exp)(Y)	63.0	15.7	5.5	4.2	90.3	98.7	49	7/23
	Means		76.1	15.5	7.8	8.3	83.9	96.6	50	7/23

(Y) Yellow hybrid, (W) White hybrid, (Exp) Experimental hybrid, not available commercially.

Differences in yield of less than 9.0 bushels per acre are not significant.

Table 3. Performance Data on Uniform Hybrid Test, Christian County, 1955

Rank in Yield	Hybrid			Yield/acre 15.5% moisture	Moisture at harvest	Stand	Broken Plants	Root Lodged plants	Erect plants	Ear height
				bu.	%	%	%	%	%	ft.
1	Ky 2105	(Exp)	(W)	77.8	13.2	98	8.1	0.8	91.1	4.5
2	Ky 104		(Y)	77.5	13.5	97	8.6	2.6	88.8	5.0
3	Ky 1110	(Exp)	(W)	76.6	13.8	99	0.8	1.3	97.9	3.5
4	P.A.G. 401		(Y)	74.3	13.4	95	4.4	2.5	93.1	3.0
5	US 523W		(W)	74.0	14.0	92	5.4	3.2	91.4	3.5
6	Pioneer 301A		(Y)	72.8	13.1	97	5.6	1.3	93.1	3.0
7	Funk's G 91		(Y)	72.4	13.6	97	2.1	5.2	92.7	3.0
8	Ky 2109	(Exp)	(W)	71.9	13.9	99	2.1	0.8	97.1	4.0
9	Ky 0109	(Exp)	(W)	71.0	13.8	98	3.4	15.7	80.9	3.0
10	Ky 9105B	(Exp)	(W)	70.2	13.6	100	2.9	4.6	92.5	4.5
11	Ky 2111	(Exp)	(W)	70.1	13.4	102	6.9	3.3	89.8	3.5
12	Ky 2001	(Exp)	(Y)	69.6	14.0	95	6.1	1.7	92.2	4.0
13	Ky 203		(W)	68.8	13.4	98	10.6	3.4	86.0	4.5
14	Funk's G 134		(Y)	68.6	13.9	95	1.3	0.4	98.3	4.0
14	Stull 400W		(W)	68.6	13.4	98	3.8	1.7	94.5	4.0
16	Ky 2018	(Exp)	(Y)	68.3	13.3	97	1.7	2.6	95.7	4.0
17	Stull 100Y		(Y)	68.2	13.3	98	4.3	0.9	94.8	3.5
18	Ky 2004	(Exp)	(Y)	67.9	14.2	98	3.0	9.3	87.7	4.0
19	Pioneer 309A		(Y)	66.7	13.8	97	1.3	0	98.7	4.5
20	Ind. 750B		(W)	66.4	13.3	96	4.8	0.9	94.3	4.0
21	Ky 2106	(Exp)	(W)	66.3	13.4	98	8.0	3.4	88.6	3.0
22	Funk's G 512W		(W)	66.0	13.4	94	1.3	10.2	88.5	4.0
22	Supercrost 880		(Y)	66.0	13.4	98	6.8	5.1	88.1	3.5
24	Ky 1002	(Exp)	(Y)	65.6	13.5	82	4.5	0.5	95.0	3.0
25	Ind. 844D		(Y)	64.4	13.2	96	11.3	1.7	87.0	3.0
26	Ky 9107	(Exp)	(W)	63.2	13.3	98	2.1	0.4	97.5	4.5
27	Broadbent 402Y		(Y)	63.1	13.2	92	4.5	3.6	91.9	4.0
28	Ky 103		(Y)	62.6	13.5	88	5.2	2.8	92.0	3.5
29	Ky 102		(Y)	62.5	13.4	94	7.5	4.4	88.1	4.0
30	Ky 0105	(Exp)	(W)	62.4	13.7	98	8.5	0.4	91.1	4.0
31	Stull 400WA		(W)	62.3	13.3	97	7.3	0.4	92.3	4.5
32	Broadbent 235W		(W)	62.0	13.3	89	3.3	0.5	96.2	4.5
32	Supercrost 700A		(Y)	62.0	13.9	92	5.9	9.5	84.6	3.0
34	US 13		(Y)	60.2	13.2	98	7.3	0.4	92.3	3.5
35	Ky 2030	(Exp)	(Y)	59.9	13.6	99	2.1	1.3	96.6	4.5
36	Ky 1005	(Exp)	(Y)	58.8	14.4	97	3.0	2.6	94.4	4.0
	Means			67.5	13.5	96	4.9	3.0	92.0	3.8

(Y) Yellow hybrid, (W) White hybrid, (Exp) Experimental hybrid, not available commercially.
Differences in yield of less than 9.0 bushels per acre are not significant.

Table 4. Performance Data on Uniform Hybrid Test, Caldwell County, 1955.

Rank in Yield	Hybrid		Yield/acre shelled grain 15.5% mois.	Moisture at Harvest	Stand	Broken stalks	Erect Plants	Ear Ht. Ins.	Date of Silk.
			bu.	%	%	%	%		July
1	Ky 0109	(EXP)(W)	86.2	13.4	96	1.7	98.3	59	20
2	Ky 2111	(Exp)(W)	83.3	13.5	94	0.4	99.6	56	16
3	Funk's G512W	(W)	83.2	15.7	95	2.6	97.4	56	20
4	Ky 2105	(Exp)(W)	81.4	13.2	94	3.1	96.9	58	16
5	Ky 2109	(Exp)(W)	81.1	15.2	95	0.9	99.1	54	18
6	Ky 104	(Y)	79.8	15.8	94	4.4	95.6	55	22
7	Ky 2030	(Exp)(Y)	78.5	16.0	96	0.9	99.1	56	18
7	Ky 9105B	(Exp)(W)	78.5	16.3	95	0.9	99.1	56	22
9	Stull 400W	(W)	78.2	14.3	96	3.5	96.5	56	20
10	Ky 2001	(Exp)(Y)	78.0	15.8	97	1.3	98.7	56	20
11	U.S. 523W	(W)	77.3	15.4	95	3.5	96.5	54	20
12	Ky 1005	(Exp)(Y)	76.0	14.1	96	1.3	98.7	56	22
13	Ky 2106	(Exp)(W)	75.5	14.9	96	3.9	96.1	55	20
14	Ind 750B	(W)	75.4	13.5	97	0.9	99.1	55	16
15	Broadbent 235W	(W)	75.2	15.2	93	1.8	98.2	55	20
16	Stull 100Y	(Y)	75.1	14.6	96	0	100.0	53	16
16	Funk's G134	(Y)	75.1	14.3	96	0.9	99.1	54	18
18	Ky 2018	(Exp)(Y)	74.6	14.4	94	0	100.0	56	18
19	Ky 1002	(Exp)(Y)	74.5	12.5	97	2.6	97.4	52	18
20	Ky 9107	(Exp)(W)	74.4	15.7	97	2.6	97.4	57	20
21	Broadbent 402Y	(Y)	74.3	13.8	96	3.0	97.0	56	22
22	Ky 203	(W)	74.2	14.4	95	4.4	95.6	57	22
23	Ky 2004	(Exp)(Y)	74.0	17.1	95	2.6	97.4	57	20
24	Ky 0105	(Exp)(W)	72.8	15.0	93	1.3	98.7	55	20
25	Ky 1110	(Exp)(W)	72.2	15.8	96	1.3	98.7	54	22
26	Stull 400WA	(W)	72.1	15.2	92	3.2	96.8	54	16
27	Pioneer 309A	(Y)	72.0	18.7	93	1.3	98.7	58	20
28	Funk's G91	(Y)	71.8	13.5	96	1.7	98.3	54	16
29	US 13	(Y)	69.3	12.8	93	1.3	98.7	55	18
30	Ky 103	(Y)	66.1	14.2	95	0.9	99.1	56	20
31	Supercrost 700A	(Y)	65.8	12.8	92	1.4	98.6	50	14
32	Ky 102	(Y)	64.7	14.6	93	2.7	97.3	54	20
33	Pioneer 301A	(Y)	63.7	12.9	96	1.3	98.7	49	20
34	Supercrost 880	(Y)	63.1	12.9	94	3.1	96.9	50	14
35	PAG 401	(Y)	61.1	20.9	94	2.2	97.8	51	20
36	Ind 844D	(Y)	52.5	22.0	93	3.1	96.9	48	22
	Means		73.6	15.0	95	2.0	98.0	55	19

(Y) Yellow hybrid, (W) White hybrid, (Exp) Experimental hybrid not available commercially.
Differences in yield of less than 10.6 bushels per acre are not significant.

Table 5. Performance Data on Uniform Hybrid Test, Breathitt County, 1955.

Rank in yield	Hybrid			Yield/Acre 15.5% moisture bu.	Moisture at harvest %	Stand %	Broken stalks %	Root lodged %	Erect plants %	Ear height ins.	Stover per acre tons
1.	Funk's G134		(Y)	98.7	20.1	96.3	0.6	0	99.4	55	5.57
2	Ky 2018	(Exp)	(Y)	97.8	22.5	88.1	0.7	2.8	96.5	57	5.67
2	Ky 1005	(Exp)	(Y)	97.8	22.5	87.5	2.1	0	97.9	57	6.22
4	Ky 2004	(Exp)	(Y)	94.4	19.6	92.5	0.7	0.7	98.6	58	4.76
5	Ky 0109	(Exp)	(W)	93.0	20.0	90.0	0	0.7	99.3	55	5.15
6	Funk's G512W		(W)	92.5	19.0	85.0	2.2	0.7	97.1	55	5.37
7	Pioneer 309A		(Y)	91.1	20.0	86.3	0	0	100.0	56	5.35
8	Broadbent 402Y		(Y)	90.1	20.5	93.1	2.0	1.3	96.7	53	5.00
9	Ky 2001	(Exp)	(Y)	89.2	20.6	91.9	3.4	0	96.6	57	3.97
10	Ky 103		(Y)	89.0	19.2	91.3	6.8	0	93.2	55	4.24
11	Stull 400WA		(W)	86.6	20.0	88.1	1.4	0	98.6	53	3.99
12	Ky 203		(W)	86.4	19.2	79.4	5.5	0.8	93.7	60	4.60
13	Ky 2105	(Exp)	(W)	85.8	23.5	83.8	0.7	0	99.3	54	4.97
14	Ky 2106	(Exp)	(W)	84.8	22.6	92.5	1.4	0	98.6	58	4.99
15	P.A.G. 401		(Y)	84.3	20.0	94.4	0	0	100.0	56	4.02
16	US 523W		(W)	83.9	24.3	89.4	1.4	0	98.6	57	4.89
16	Funk's G91		(Y)	83.9	22.2	90.0	0.7	0	99.3	57	4.48
18	Pioneer 301A		(Y)	82.7	19.1	88.8	2.1	1.4	96.5	49	4.08
19	Ky 0105	(Exp)	(W)	81.3	22.3	85.0	0	0	100.0	56	4.48
20	Supercrost 880		(Y)	81.1	21.5	91.9	4.1	0	96.9	53	3.83
20	Ky 1002	(Exp)	(Y)	81.1	20.3	78.1	3.2	0	96.8	57	4.54
22	Stull 400W		(W)	80.8	20.6	85.0	1.5	0	98.5	56	4.55
23	Ky 2111	(Exp)	(W)	80.4	21.6	86.3	0.7	2.2	97.1	55	4.24
24	Ind 750B		(W)	80.0	23.3	83.1	0.8	0.8	98.4	52	4.11
25	Stull 100Y		(Y)	79.6	23.0	85.0	0.7	0	99.3	55	5.12
26	Ind 844D		(Y)	79.2	22.5	91.3	3.4	0	96.6	52	4.30
27	Ky 9107	(Exp)	(W)	78.4	20.9	81.3	0	0	100.0	56	4.36
28	Ky 9105B	(Exp)	(W)	78.2	24.0	90.6	2.1	0	97.9	57	5.10
29	US 13		(Y)	78.1	21.0	81.3	4.6	0	95.4	57	4.25
30	Ky 1110	(Exp)	(W)	77.8	22.2	92.5	4.1	2.0	93.9	58	5.40
31	Ky 2030	(Exp)	(Y)	77.4	21.1	86.3	2.9	1.4	95.7	56	4.39
32	Supercrost 700A		(Y)	76.8	22.0	91.9	6.1	2.0	91.9	53	3.37
33	Ky 102		(Y)	76.5	21.2	93.1	2.0	0	97.0	59	5.20
34	Ky 2109	(Exp)	(W)	74.9	23.6	90.0	0	1.4	98.6	57	4.78
35	Ky 104		(Y)	70.0	21.9	82.5	6.1	9.8	84.1	59	4.70
36	Broadbent 235W		(W)	67.9	19.3	80.0	0.8	0	99.2	55	3.94
	Means			83.6	21.3	87.9	2.1	0.8	97.1	56	4.67

Differences in yield of less than 15.2 bushels per acre are not significant.

Table 6. Performance Data on Uniform Hybrid Test, Madison County, 1955

Rank in Yield	Hybrid			Yield/acre 15.5% moisture	Moisture at harvest	Broken plants	Root lodged plants	Erect plants	Stand
				bu.	%	%	%	%	%
1	Ky 2109	(Exp)	(W)	109.8	18.3	3.9	0	96.1	85.4
2	Ky 2018	(Exp)	(Y)	105.7	19.7	21.3	3.3	75.4	87.9
3	Ky 104		(Y)	105.2	19.7	58.8	2.5	38.7	85.0
4	Ky 9105B	(Exp)	(W)	100.5	23.5	5.7	0.9	93.4	87.5
5	Pioneer 309A		(Y)	95.4	21.7	6.5	0	93.5	83.3
6	Ky 1110	(Exp)	(W)	95.2	22.8	1.9	0	98.1	88.3
6	Ky 0109	(Exp)	(W)	95.2	20.5	5.0	0.5	94.5	83.7
6	Ky 9107	(Exp)	(W)	95.2	20.1	1.3	0	98.7	92.9
9	Ky 2001	(Exp)	(Y)	94.3	22.1	23.2	0.5	76.3	80.8
10	Funk's G 512W		(W)	92.9	19.5	11.1	1.6	87.3	79.2
11	Ky 2105	(Exp)	(W)	92.5	20.3	8.1	1.0	90.9	82.5
12	Funk's G 134		(Y)	92.0	20.3	12.7	0.5	86.8	92.1
13	Ky 2111	(Exp)	(W)	90.4	21.9	10.8	1.5	87.7	81.3
14	Ky 2106	(Exp)	(W)	90.3	18.5	16.1	0.5	83.4	90.4
15	Ky 203		(W)	89.6	19.1	24.6	1.2	74.2	71.3
16	Ky 2004	(Exp)	(Y)	89.0	21.7	6.8	0	93.2	80.0
17	Pioneer 301A		(Y)	88.9	20.2	14.8	1.9	83.3	87.1
18	Ind. 750B		(W)	87.2	20.9	11.6	0.5	87.9	82.9
19	US 523W		(W)	86.5	18.1	11.6	1.4	87.0	90.0
20	Supercrost 880		(Y)	85.2	20.9	19.8	0	80.2	71.7
21	Funk's G 91		(Y)	84.3	20.9	16.1	3.8	80.1	77.5
22	Ky 0105	(Exp)	(W)	84.2	21.1	18.3	0.5	81.2	79.6
23	P.A.G. 401		(Y)	83.9	19.9	32.2	1.0	66.8	85.4
24	Ky 1005	(Exp)	(Y)	83.5	20.7	5.2	0	94.8	80.8
25	Ky 2030	(Exp)	(Y)	83.2	21.2	7.6	2.0	90.4	82.1
26	Stull 100Y		(Y)	81.2	19.9	4.0	0.5	95.5	82.9
27	US 13		(Y)	77.9	20.6	14.6	2.4	83.0	85.4
28	Broadbent 402Y		(Y)	77.7	23.0	19.9	0	80.1	75.4
29	Ky 102		(Y)	73.2	22.9	36.9	2.6	60.5	81.3
30	Broadbent 235W		(W)	70.6	21.9	7.0	3.5	89.5	71.7
30	Ind. 844D		(Y)	70.6	20.3	27.0	0.6	72.4	72.5
32	Ky 1002	(Exp)	(Y)	69.6	22.9	27.1	1.0	71.9	86.3
33	Supercrost 700A		(Y)	68.6	20.6	31.9	1.6	66.5	75.8
34	Ky 103		(Y)	64.4	21.0	27.8	2.8	69.4	60.0
	Means			86.6	20.7	15.8	1.2	83.0	81.7

(Y) Yellow hybrid, (W) White hybrid, (Exp) Experimental hybrid, not available commercially.

Differences in yield of less than 19.3 bushels per acre are not significant.

Table 7. Performance Data on Uniform Hybrid Test, Kenton County, 1955

Rank in yield	Hybrid			Yield/acre 15.5% moisture	Moisture at harvest	Broken plants	Root lodged plants	Erect plants	Stand	Ear height
				bu.	%	%	%	%	%	ft.
1	Funk's G 91		(Y)	58.1	20.4	21.8	0.0	78.2	85.8	4.1
2	Ky 2106	(Exp)	(W)	54.4	19.6	43.1	3.8	53.1	87.9	4.3
3	Ky 0105	(Exp)	(W)	53.8	22.0	28.4	12.3	59.3	98.3	4.9
4	Ky 104		(Y)	53.6	22.7	50.4	24.8	24.8	95.8	4.6
4	US 523W		(W)	53.6	21.7	31.7	13.6	54.7	92.1	3.9
6	Ky 1002	(Exp)	(Y)	52.8	20.6	27.9	1.8	70.3	92.5	3.7
6	Pioneer 301A		(Y)	52.8	17.8	15.0	6.4	78.6	91.7	3.3
8	Ky 2105	(Exp)	(W)	51.2	19.0	57.3	3.9	38.8	85.8	3.9
9	Ky 2109	(Exp)	(W)	50.8	19.9	43.2	12.6	44.2	92.5	4.0
10	Stull 100Y		(Y)	50.1	20.2	18.0	0	82.0	90.4	3.6
11	Ky 103		(Y)	49.3	19.2	24.4	5.6	70.0	88.7	3.6
12	US 13		(Y)	48.8	20.2	20.7	6.5	72.8	90.4	3.4
13	Ky 1005	(Exp)	(Y)	48.7	22.6	7.0	26.8	66.2	95.0	4.4
14	Stull 400W		(W)	47.6	19.4	32.6	17.0	50.4	90.8	4.4
15	Ky 102		(Y)	47.4	20.0	45.9	11.6	42.5	97.1	4.1
16	Ky 2030	(Exp)	(Y)	47.1	22.4	11.5	26.1	62.4	90.8	3.7
17	Ky 203		(W)	46.4	20.0	50.2	4.8	45.0	86.3	4.5
18	Ky 0109	(Exp)	(W)	46.1	24.3	11.1	41.9	47.0	97.5	4.3
19	Broadbent 402Y		(Y)	45.6	22.3	17.9	29.5	52.6	93.3	3.9
20	Broadbent 235AW		(W)	44.9	22.2	20.2	10.8	69.0	84.6	4.3
21	Ky 9105B	(Exp)	(W)	44.8	22.4	17.5	14.3	68.2	90.4	4.7
22	Ky 2111	(Exp)	(W)	42.5	19.6	37.1	6.7	56.2	80.8	3.9
23	Funk's G 512W		(W)	42.4	21.3	27.5	10.9	61.6	87.9	3.9
24	Ind. 844D		(Y)	41.8	19.0	31.9	1.4	66.7	90.0	3.4
25	Ind. 750B		(W)	39.8	20.8	11.8	32.7	55.5	87.8	3.5
	Means			48.6	20.8	28.2	13.0	58.8	90.6	4.0

(Y) Yellow hybrid, (W) White hybrid, (Exp) Experimental hybrid, not available commercially.

Differences in yield of less than 13.2 bushels per acre are not significant.

Table 8. Performance Data on Uniform Hybrid Test, Lee County, 1955

Rank in yield	Hybrid			Yield/acre 15.5% moisture	Moisture at harvest	Broken plants	Root lodged plants	Erect plants	Stand	Ear height
				bu.	%	%	%	%	%	ft.
1	Ky 1005	(Exp)	(Y)	71.6	23.5	24.9	0	75.1	98.7	4.7
1	Ky 9105B	(Exp)	(W)	71.6	28.2	13.7	0.4	85.9	100.0	5.0
3	Ky 0109	(Exp)	(W)	69.0	22.5	16.7	2.5	80.8	98.7	4.3
4	Ky 2111	(Exp)	(W)	65.3	23.3	38.0	1.3	60.7	98.7	4.0
5	Ky 2105	(Exp)	(W)	65.2	21.3	54.0	0.7	45.3	98.7	3.7
6	Funk's G 512W		(W)	64.0	23.3	32.5	0.4	67.1	98.7	4.7
7	Ky 104		(Y)	62.2	24.0	41.7	19.2	39.1	100.0	5.0
8	Ky 0105	(Exp)	(W)	59.7	22.3	39.6	0.5	59.9	100.0	4.5
9	Ky 2106	(Exp)	(W)	58.3	24.5	31.3	7.5	61.2	100.0	4.3
10	Funk's G 91		(Y)	58.2	23.5	22.5	0.8	76.3	100.0	3.7
11	US 523W		(W)	57.3	23.4	24.9	0	75.1	98.7	4.5
12	Ind. 750B		(W)	57.1	24.1	14.6	0.5	84.9	100.0	4.3
13	Stull 400W		(W)	56.9	23.9	19.6	2.1	78.3	100.0	5.0
14	Ky 2030	(Exp)	(Y)	56.8	24.9	40.4	0.5	59.1	100.0	4.7
15	Ky 2109	(Exp)	(W)	54.4	23.9	33.7	7.9	58.4	100.0	4.3
16	Broadbent 402Y		(Y)	53.0	19.8	40.1	0	59.9	98.7	4.3
17	Ind. 844D		(Y)	52.4	21.9	19.6	0.4	80.0	100.0	4.3
17	Stull 100Y		(Y)	52.4	22.8	53.2	1.3	45.5	98.7	3.3
19	Ky 1002	(Exp)	(Y)	52.1	23.1	63.7	0	36.3	100.0	4.7
19	Pioneer 301A		(Y)	52.1	21.9	36.3	0.8	62.9	98.7	3.0
21	Broadbent 235AW		(W)	50.6	23.9	26.6	2.1	71.3	98.7	4.7
22	Ky 203		(W)	47.6	22.9	38.3	0.7	61.0	100.0	4.7
23	US 13		(Y)	46.4	22.3	67.9	1.3	30.8	97.5	4.3
24	Ky 103		(Y)	42.3	23.5	50.9	0	49.1	97.5	4.0
25	Ky 102		(Y)	40.7	24.7	58.3	0.4	41.3	98.7	5.0
	Means			56.7	23.3	36.1	2.1	61.8	99.2	4.4

(Y) Yellow hybrid, (W) White hybrid, (Exp) Experimental hybrid, not available commercially.

Differences in yield of less than 8.3 bushels per acre are not significant.

Table 9. Performance Data on Uniform Hybrid Test, Lewis County, 1955.

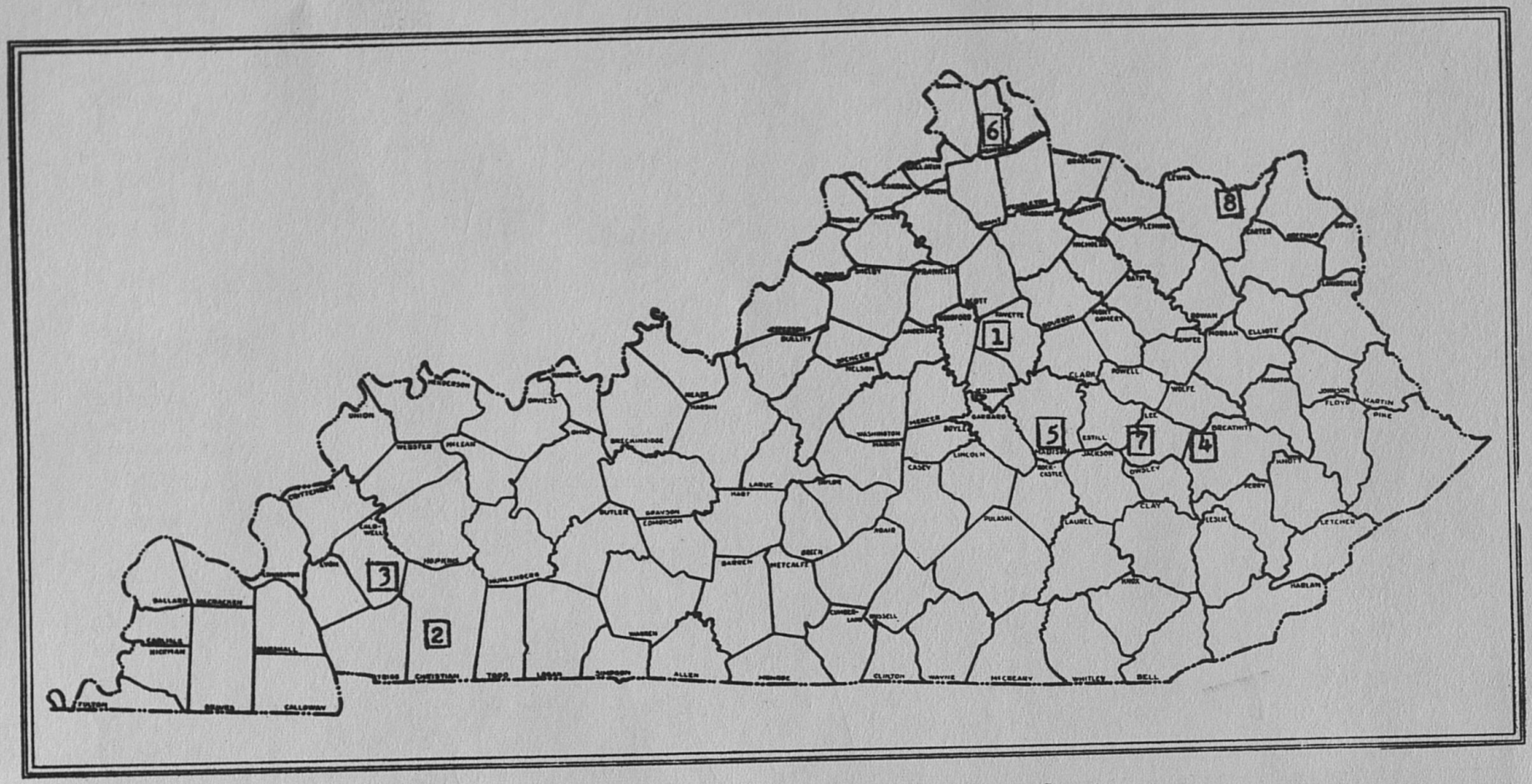
Rank in Yield	Hybrid		Yield bu.per acre	Moisture %	Broken Stalks %	Root Lodged %	Erect Plants %	Ear Height ft.	Ear Quality
1	Ky 2030	(EXP)(Y)	107.0	18.3	24.3	1.7	74.0	3.5	2.3
2	Ky 1005	(EXP)(Y)	103.0	17.3	15.2	3.0	81.8	4.5	1.7
3	Ky 9105 B	(EXP)(W)	100.0	18.1	5.2	6.0	88.8	4.7	2.3
4	US 523 W	(W)	98.8	17.8	19.7	0.9	79.4	3.5	1.7
5	Ky 104	(Y)	95.6	21.6	41.9	13.1	45.0	4.5	1.7
6	Ky 2105	(EXP)(W)	94.7	16.7	15.1	0.4	84.5	3.5	2.7
7	Ky 0109	(EXP)(W)	93.1	17.3	21.9	0.8	77.3	3.3	3.0
8	Funk's G 91	(Y)	92.6	17.5	19.0	0	81.0	3.0	2.7
9	Funk's G 512 W	(W)	90.5	17.6	9.2	4.6	86.2	3.7	3.0
10	Stull 100 Y	(Y)	88.3	17.1	14.5	4.5	81.0	3.3	3.0
11	Ky 2109	(EXP)(W)	87.4	17.1	10.8	1.8	87.4	3.3	2.7
12	Broadbent 235 AW	(W)	86.6	17.7	12.9	1.3	85.8	3.7	2.3
13	Broadbent 402 Y	(Y)	85.3	17.0	24.0	2.7	73.3	3.7	2.7
14	Ky 2111	(EXP)(W)	84.4	17.9	19.8	0	80.2	3.7	2.5
15	Stull 400 W	(W)	84.3	17.9	12.4	3.3	84.3	3.7	2.7
16	Ind 750 B	(W)	84.2	19.8	6.4	1.8	91.8	3.3	3.3
17	Ky 2106	(EXP)(W)	82.8	17.7	9.0	2.3	88.7	3.6	3.7
18	Ky 1002	(EXP)(Y)	79.7	16.7	34.2	1.7	64.1	3.0	3.0
19	Ky 103	(Y)	78.0	18.7	41.9	2.7	55.4	3.5	3.3
20	Pioneer 301 A	(Y)	77.0	16.2	18.0	10.5	71.5	3.0	3.7
21	Ind. 844 D	(Y)	76.6	17.1	25.3	3.6	71.1	3.3	4.0
22	Ky 0195	(EXP)(W)	74.7	19.1	38.6	1.7	59.7	4.0	2.7
23	US 13	(Y)	73.5	17.7	32.7	1.8	65.5	3.0	2.7
24	Ky 102	(Y)	73.0	20.1	57.4	2.2	40.4	4.3	3.0
25	Ky 203	(W)	71.8	18.6	27.9	0.9	71.2	3.3	3.3
		Means	86.5	17.9	22.3	2.9	74.8	3.6	2.8

(Y) Yellow hybrid, (W) White hybrid, (EXP) Experimental hybrid, not available commercially.
Differences in yield of less than 12.7 bushels per acre are not significant.

Table 10. Summary of Average Performance Records for Hybrids Tested in Kentucky 1951-1955.

Hybrid	2 yrs. 1954-1955			3 yrs. 1953-1955			5 yrs. 1951-1955		
	Acre Yield	Moist.	Plants Erect	Acre Yield	Moist.	Plants Erect	Acre Yield	Moist.	Plants Erect
	Bu.	%	%	Bu.	%	%	Bu.	%	%
White hybrids									
Ky 203	65.7	17.9	76.1	64.6	17.9	80.0	63.0	18.0	82.3
US 523 W	73.7	18.9	78.8	71.0	18.7	83.2	70.5	18.6	85.2
Ind 750 B	69.7	18.9	89.9	67.9	18.7	92.6	66.5	18.4	92.4
Ky 9105 B	74.1	19.3	89.9	71.6	18.8	92.3	70.6	18.8	93.0
Ky 9107	70.4	18.2	89.0	69.0	17.8	91.7	--	--	--
Ky 0105	68.1	18.7	83.7	68.1	18.6	86.5	67.1	18.4	87.7
Ky 0109	75.5	18.9	84.7	73.6	18.7	89.4	71.2	18.4	90.4
Ky 1110	71.2	18.7	87.9	70.4	18.8	91.2	--	--	--
Ky 2105	76.7	17.6	85.3	74.2	17.0	88.5	--	--	--
Ky 2106	72.7	17.7	85.1	71.8	17.1	88.1	--	--	--
Ky 2109	74.1	18.1	88.0	71.8	17.7	91.3	--	--	--
Ky 2111	73.6	17.6	83.6	71.6	16.9	87.1	--	--	--
Funk's G 512 W	72.7	17.9	84.3	70.9	17.6	87.8	69.2	17.5	90.0
Stull 400 W	71.1	18.0	85.8	68.5	17.9	89.2	68.4	17.8	89.0
Broadbent 235 W	65.1	18.7	86.6	61.5	19.2	89.4	62.6	18.8	89.6
Yellow hybrids									
US 13	68.6	17.3	82.3	68.3	16.8	86.5	66.3	16.5	87.4
Ky 102	65.3	18.9	75.4	64.5	18.3	80.6	61.8	18.2	82.5
Ky 103	65.6	17.9	82.9	66.6	17.3	85.9	65.1	16.9	85.2
Ky 104	75.9	19.6	63.9	74.5	19.2	72.3	72.1	19.3	74.8
Ind 844 D	63.9	17.5	86.9	63.6	16.7	88.9	--	--	--
Ky 1002	74.1	17.5	84.0	72.0	17.0	88.0	--	--	--
Ky 1005	77.1	18.6	89.8	74.8	18.1	91.8	--	--	--
Ky 2001	73.9	18.2	81.5	72.2	18.0	84.6	--	--	--
Ky 2004	73.3	19.4	82.3	70.4	19.0	86.2	--	--	--
Ky 2018	74.4	18.6	81.2	73.2	18.4	84.8	--	--	--
Ky 2030	72.8	18.5	85.3	71.8	18.3	87.8	--	--	--
Funk's G 91	71.5	18.0	87.3	70.6	17.4	90.2	68.7	17.1	91.4
Funk's G 134	73.3	18.3	83.4	70.5	18.0	88.3	--	--	--
Pioneer 301 A	71.7	16.8	87.9	--	--	--	--	--	--
Broadbent 402 Y	69.9	18.1	80.5	--	--	--	--	--	--

Figure 1. Location of Corn Performance Trials



1. Lexington, Fayette County
2. Hopkinsville, Christian County
3. Princeton, Caldwell County
4. Quicksand, Breathitt County
5. Berea, Madison County
6. Morning View, Kenton County
7. Primrose, Lee County
8. Vanceburg, Lewis County