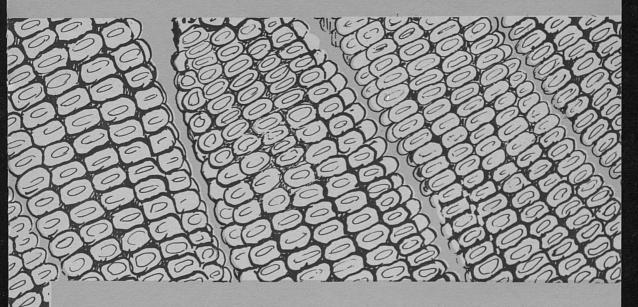


By F. A. LOEFFEL, J. F. SHANE, and H.R. RICHARDS



PROGRESS REPORT 86

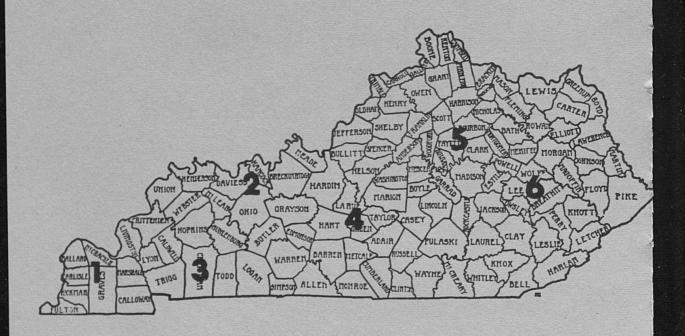
(Filing Code: 1-1)

UNIVERSITY OF KENTUCKY
AGRICULTURAL EXPERIMENT STATION
LEXINGTON

JANUARY 1960

TESTING LOCATIONS OF

THE KENTUCKY HYBRID CORN PERFORMANCE TEST



Area	Location	Cooperator
Western	1. Wickliffe 2. Owensboro	James Wilson Beverly Gregory
	3. Hopkinsville	Murray Wall
Eastern	4. Campbellsville	James Noe
	5. Lexington	Ky. Agr. Exp. Sta.
	6. Quicksand	Robinson Agr. Exp. Substation Charles M. Derrickson

Acknowledgment is made to Dr. John Hamlin, Director of the University of Kentucky Computing Center, for assistance in summarizing the results reported in this progress report.

RESULTS OF THE KENTUCKY HYBRID CORN PERFORMANCE TEST IN 1959

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

The objective of the Kentucky Hybrid Corn
Performance Test is to provide an unbiased estimate
of the relative performance of corn hybrids being
sold in Kentucky. This information may then be
used by farmers, seedsmen and research and extension
personnel in determining which hybrid most nearly
possesses the characteristics which are desired or
required for a specific situation. The need for
the University of Kentucky Agricultural Experiment
Station to obtain this information is indicated by
the continuing shift to hybrids by the farmers of
Kentucky. Over 96 percent of the Kentucky corn
acreage was planted to hybrids in 1959.

Despite many setbacks to the potential 1959 corn crop, final production estimates indicate that Kentucky farmers have enjoyed another bumper crop. A total of nearly 86 million bushels were produced in Kentucky on 1.8 million acres. The 1959 state average was 47 bushels which is exceeded only by the 1958 yield of 49 bushels. This is the fifth consecutive year in which the state yield average has been greater than 41 bushels.

A cool, dry spring enabled farmers to make unusually rapid progress in ground preparation and corn planting. Ten percent of the corn was planted in the state before April 28, especially in southern and western counties. However, a shortage of moisture became increasingly critical until May 10 when showers brought relief. For the week ending May 12, 92 percent of the weather-crop reporters indicated a moisture shortage. By May 19,

70 percent of the corn was planted as compared to 25 percent in 1958, but persistent rains for nearly a month delayed further progress. Cultivation was hampered by the wet soil conditions and weeds obtained a headstart to plague farmers throughout the season.

Very limited rains in late June and early July brought a threat of drought damage. The north-central part of the state was affected most severely. Early corn was damaged somewhat but the remainder was saved by rains occurring about July 20. A period of hot humid weather in late August and early September hastened maturity. Corn harvest was ahead of schedule until late October when rain slowed progress. By November 1, 75 percent of the crop had been harvested.

Kentucky average rainfall for the growing season, April through September, totaled 21.27 inches which is 1.64 inches below normal and 7.45 inches under 1958. The western half of the state received about average rainfall with locally excessive amounts while the eastern half received below average rainfall.

Northern, Southern, and Stewarts corn leaf blight were locally severe in many areas of the state. Most damage occurred in western Kentucky in the lower Ohio River valley.

The average yield for all hybrids grown at six locations in 1959 was 94.3 bushels. The highest test average was 97.4 bushels grown at Owensboro. The lowest test average was 91.3 bushels for the Campbellsville test.

EXPERIMENTAL METHODS

The performance test was conducted at six locations which represent corn-producing areas typical of the state. These locations together

with the name of the cooperator are listed on the inside of the front cover. These testing sites were grouped by geographical location into a western and eastern area for convenience in presenting the results. Yields from Wickliffe, Owensboro, and Hopkinsville were averaged for the western area. Similarly the yields from Campbellsville, Lexington, and Quicksand were averaged for the eastern Kentucky area.

Fifty hybrids which are available to the farmers of Kentucky through commercial trade channels were compared. These hybrids, developed by state and federal research agencies and by private seed companies, are listed in Table 1. Information concerning the seed source of the hybrid, the kernel color and the type of cross are presented. The type of hybrid is designated as follows: double cross, 4X; and a single cross as 2X. Seed of a single cross hybrid sells at a premium due to increased costs of producing seed. Fortynine double crosses and 1 single cross were evaluated this year.

The pedigrees of hybrids developed by state and federal agencies are listed in Table 2. Agronomic information pertaining to the testing locations is presented in Table 3. Results of the Kentucky Hybrid Corn Performance Test are summarized for periods of 3 years, 2 years and 1 year and are presented in Tables 4-6 respectively. The hybrids are grouped in the tables on the basis of kernel color. Within groups the hybrids are listed in order of increasing moisture content. The reaction of the hybrids to Northern, Southern, and Stewarts leaf blight are summarized in Table 7. The hybrids in Table 7 are listed in alphabetical order.

Field Design.

Each hybrid was planted in 4 plots at each of the six locations with individual plots being 2 hills wide and 5 hills long. These plots were located in different parts of the testing field to minimize cultural and soil differences.

Yield.

The corn from each plot was harvested and weighed individually. The yield of the hybrids was determined and is reported on the basis of bushels of shelled corn per acre with a moisture content of 15.5 percent. Adjustments were made for missing hills but not for other variation in stand. Therefore, the yields at each location reported in this progress report constitute an average yield of the 4 plots after all adjustments were made.

Moisture.

The moisture content at harvest is the best measure of relative maturity of hybrids which is available. A hybrid may be considered to be earlier than a second hybrid if its moisture content at harvest is consistently lower. Maturity thus determined is not absolute but is relative to the hybrids being compared.

Two moisture samples were taken for each hybrid by taking a sample from replication 1 and 2, and from replication 3 and 4. The moisture content in the grain was determined at harvest by removing 2 rows of kernels from each of 10 ears selected at random from each of two replications. The grain from the 20 ears was thoroughly mixed and the moisture content of a 100-gram sample was determined with a Steinlite moisture meter.

Erect Plants.

The percent erect plants is considered to be an estimate of the resistance of a hybrid to the total insect and disease complex affecting standing ability. This value is obtained by counting plants with stalks broken between the ear bearing node and ground level and those which lean from the base at an angle of more than 30 degrees from the vertical. This sum is subtracted from the plants present and the difference divided by the total plants present to give the percent erect plants.

Ear Height.

Ear height, distance from the base of the plant to the point of attachment of the upper ear, was measured visually using a scale with one-foot intervals. Visual ratings were taken on four plots of each hybrid at each location.

Stand.

All tests were planted at the rate of 5 kernels per hill and the resulting plants thinned to 3 or 4 per hill. The percent stand was computed on the basis of the total plants present divided by the number of plants which would have been present if all had survived.

Disease.

Visual ratings of hybrid reaction to Northern, Southern, and Stewarts leaf blight diseases are recorded at each location when sufficient natural infection is present. A five-class rating scale is used.

INTERPRETATION

The performance of hybrids vary with weather conditions which change from season to season and from testing location to testing location in the same season. Since the weather conditions cannot be predicted at the time of planting, a farmer should plant a hybrid which has a good performance in an "average" season. The best estimate of hybrid performance for an "average" season is obtained by combining the results obtained from a large number of experiments grown in different years at a number of locations.

The information presented in Table 4 is the average of 17 individual experiments grown in 1957, 1958, and 1959. In Table 5 are summarized the results obtained from 11 experiments grown in 1958 and 1959. Table 6 contains information obtained from 6 experiments grown in 1959 at different locations in the state. For this reason, the information contained in Table 4 is the best estimate available for comparing the performance of corn hybrids for average growing conditions in Kentucky.

BE YOUR OWN JUDGE

Improvements in corn hybrids are constantly being made. An efficient corn producer will want to keep informed on these improvements and to determine if they will produce on his farm. For this reason, it is suggested that new hybrids be grown frequently on a trial basis in comparison with the hybrid or hybrids presently grown. A farmer often changes his entire corn acreage to a different hybrid. He then compares his old hybrid grown the previous year with the new hybrid grown the current year. Since the two hybrids were grown under different weather conditions, this comparison is not valid and often leads to incorrect decisions. Hybrids being compared should be grown in the same field using identical management practices. good way to do this is to plant one-half bushel or one bushel of seed of the new hybrid in the center of a field being sure to mark it at planting time. At harvest, yield should be determined and other observational notes recorded. It is important to observe the hybrids frequently during the growing season as well. If this suggestion is followed, a corn grower will be able to select hybrids which most nearly fits his conditions.

Strip tests can also be used by individual farmers to determine the value of other factors contributing to production efficiency. It is important for a farmer to have an unfertilized

check strip, and a strip receiving twice the quantity of fertilizer that the remainder of the field received. This enables him to determine if his investment in fertilizer was profitable and whether he used too little or too much fertilizer. The number of corn plants per acre in Kentucky is generally too low for top production. Since seed corn costs so little, it seems a shame that farmers do not change the setting on the drill and test for yield at different rates of planting. It should be kept in mind, however, that plant population and fertility level must be kept in balance for efficient production.

DO YOUR PART TO CONTRIBUTE TOWARD A 50 BUSHEL AVERAGE CORN YIELD IN KENTUCKY IN 1960

Table 1. Hybrids tested in 1959.

Hybrid	Color	Cross	Source of Hybrids
AES 801	Y	4X	Agricultural Experiment
805	Y	4X	Station (North Central)
809	Y	4X	
Broadbent 337	W	4X	Broadbent Hybrids
402B	Y	4X	Cobb, Kentucky
Cardinal 9	W	4X	
107	Y	4X	
DeKalb 803A	Y	4X	DeKalb Agricultural
805	Y	2X	Ass'n. DeKalb,
812	Y	4X	Illinois
837	Y	4X	
869	Y	4X	
898A	Y	4X	
925	W	4X	
1028	Y	4X	
Funk G-91	Y	4X	Columbia Seed
G-134	Y	4X	Company, Eldred,
G-144	Y	4X	Illinois
G-512W	W	4X	
G-711AA	Y	4X	
Hagan H-7	Y	4X	R. M. Hagan
н-9	Y	4X	Owensboro, Kentucky
Ку 102	Y	4X	University of Kentucky
103	Y	4X	Agricultural Experimen
105	Y	4X	Station, Lexington,
106A	Y	4X	Kentucky
204	W	4X	
205W	W	4X	

Table 1. Continued.

Hybrid	Color	Cross	Source of Hybrids
Meacham M-3	W	4x	Meacham's Koreandale
M-5	W	4X	Farms, Morganfield,
M-7	W	4X	Kentucky
Ohio L-51	Y	4X	Ohio Agricultural Experiment Station Wooster, Ohio
P.A.G. 401	Y	4X	Pfister Associated
434	Y	4X	Growers, Inc., Aurora,
633W	W	4X	Illinois and Huntsville, Alabama
Pioneer 309A	Y	4X	Pioneer Corn Company
309B	Y	4X	Tipton, Indiana
312A	Y	4X	
319	Y	4X	
1363	Y	4X	
Stull 100Y	Y	4X	Stull Brothers, Inc.
100YA	Y	4X	Sebree, Kentucky
101Y	Y	4X	
101YA	Y	4X	
108Y	Y	4X	
400W	W	4X	
400WC	W	4X	
500W	W	4X	
US 13	Y	4X	Experiment Station
523W	W	4X	(U.S.D.A.)

Table 2. Pedigrees of Experiment Station and U. S. hybrids tested in 1959.

Pedigree
(WF9 x B7)(B10 x B14)
(WF9 x 38-11)(C103 x 0h45)
(WF9 x P8)(Oh43 x C103)
(Kys x 38-11)(K4 x L317)
$(WF9 \times 38-11)(K4 \times L317)$
(T8 x CI21E)(38-11 x Oh 7B)
(WF9 x 38-11)(CI21E x Oh 41)
$(K64 \times 33-16)(K55 \times Ky 201)$
(Ky $209 \times \text{Ky } 211$)(33-16 x H21
(WF9 x Hy)(Oh 43 x Oh 45)
(WF9 x 38-11)(Hy x L317)
$(K55 \times K64)(Ky 27 \times Ky 49)$

Table 3. Agronomic information pertaining to testing locations in 1959.

		Fertilizer	Plants per	Date	Date	Experiment Average	ent
Loc	Location	Applied	Acre	Planted	Harvested	Yield	Moisture
1:	1. Wickliffe	300# 8-8-8 (aldrin derivative)	11,200	May 2	Oct. 1	6.46	16.6
2.	Owensboro	260# 4-16-16 175# Am. Nitrate	11,500	May 1	Sept. 28	97.4	17.4
3.	Hopkinsville	300# 6-42-0 132# Anhydrous	14,450	April 27	Oct. 5	92.0	14.8
4.	Campbellsville	300# 10-10-10 15T Manure	11,900	May 1	Sept. 24	91.3	16.8
5.	Lexington	None (sod)	14,900	May 2	Oct. 15	94.8	16.6
•	Quicksand	300# 0-30-30 300# Am. Nitrate	18,450	May 6	Oct. 10	95.2	20.8

Table 4. Three-year summary of hybrids grown in 1957, 1958, and 1959.

			Average Yield Bu./Acre	J./Acre	Maturity		
	Hybrid	State	Western Wickliffe	Eastern Campbellsville	Harvest Ear Moisture	Erect	Ear Height
			Owensboro Hopkinsville	Lexington Quicksand	%	2 ,	Ft.
	YELLOW						
-	PAG 401	9.06	93.7	87.9	17.2	87.3	3.7
1/	Pioneer 319	100.2	100.3	100.2	17.5	92.5	3.7
1)	AES 801	89.0	90.5	87.7	17.7	93.3	3.5
	Hagan H7	95.0	97.3	93.1	18.2	88.8	3.7
	Stull 101Y	101.4	101.6	101.2	18.5	92.9	3.9
	IIS 13	8.46	97.2	92.7	18.6	82.3	3.9
	Funk G-91	96.7	95.3	98.0	18.7	90.2	3.8
	DeKalb 805	104.2	107.4	101.4	18.8	93.6	3.5
	Stull 100Y	103.9	105.7	102.3	19.0	93.6	4.0
	Ку 106А	87.6	88.8	9.98	19.2	87.0	3.7
	Funk G-134	98.5	103.0	94.5	19.2	91.3	3.8
	Ky 103	92.1	94.3	90.2	19.3	82.1	4.1
	Hagan H9	107.5	108.6	106.5	19.3	93,3	4.2
	AES 805	98.4	4.66	97.6	19.5	6.06	3.7
	Ohio L51	99.3	98.1	100.4	19.7	0.96	3.2

4.3 3.8 4.1	3.8	4.2 3.9 3.8 4.0 4.0	4.1 4.0 4.3 3.9	4.0	3.9
92.3 92.8 95.0	6.06	87.5 86.3 90.8 86.1 88.4	88.1 89.5 83.8 89.1	87.7	8.68
20.5 20.5 22.8	19.1	19.2 20.3 20.4 20.4 20.6	20.6 20.8 20.8 21.0	20.5	19.6
102.2 99.2 102.3	6.96	97.9 98.1 99.0 97.1 98.4	100.4 98.3 99.6 99.7	98.7	97.5
110.1 102.2 102.5	8.66	107.5 104.6 102.3 108.8 113.2	112.3 107.2 109.5 104.1	107.7	102.4
105.9 100.5 102.3	98.2	102.4 101.1 100.5 102.6 105.3	106.0 102.5 104.2 101.7	102.9	8.66
Ky 105 Pioneer 312A Pioneer 309A	Yellow Average	WHITE Stull 400W Meacham M-5 Ky 204 US 523W Broadbent 337	DeKalb 925 PAG 633W Funk G-512W Meacham M-7	White Average	Over-all average

Table 5. Two-year summary of hybrids grown in 1958 and 1959.

		Average Yield Bu./Acre	1./Acre	Maturity		
Hybrid	State	Western Wickliffe	Eastern Campbellsville	Harvest Ear Moisture	Erect	Ear
		Owensboro	Lexington	į	1)
		Hopkinsville	Quicksand	%	%	Ft.
YELLOW						
PAG 401	91.8	93.2	90.6	17.4	86.5	3.7
Pioneer 319	105.3	103.7	106.7	17.7	92.3	3.8
AES 801	93.4	91.8	94.8	17.8	92.7	3.6
Hagan H7	99.5	8.66	99.3	18.5	89.7	3.6
Funk G91	101.6	98.5	104.3	18.6	89.1	3.8
Stull 101Y	106.7	102.3	110.3	18.6	91.6	3.9
US 13	99.5	99.2	8.66	18.7	80.7	6.0
DeKalb 805	108.2	110.7	106.1	18.9	92.5	3.4
Ky 106A	90.3	89.0	91.3	19.2	84.7	3.6
Hagan H9	113.5	109.0	117.2	19.3	93.1	4.1
Stull 100YA	107.0	106.2	107.7	19.4	91.6	3.8
Stull 100Y	110.4	110.1	110.7	19.6	92.9	4.0
Funk G-134	102.1	106.7	98.3	19.6	6.68	3.8
Ky 103	9.76	97.2	98.0	19.7	80.8	4.1
AES 805	106.5	106.5	106.6	19.9	90.1	3.8
Ohio L51	105.4	102.5	107.9	20.3	0.96	3.2
Funk G-144	102.6	100.7	104.3	20.6	92.7	3.4

	95.7 103.9 112.9	96.6 103.4 112.6	95.0 104.5 113.1	20.6 20.7 20.8	87.2 92.9 91.1	3.6
	115.3 111.8 108.7	114.3 115.7 105.8	116.1 108.6 111.2	21.1 23.0 23.3	80.9 94.2	4.1
1	103.9	103.3	104.5	19.7	88.8	3.8
ī	108.1	110.0	106.5	20.0	86.5	4.3
10	107.1	108.1	106.3	20.7	86.8	3.9
10	109.4	109.8	109.0	20.9	91.4	3.9
12	109.7	110.0	109.5	21.0	90.4	4.0
-	6.0	114.1	108.2	21.1	89.2	4.1
=	114.7	117.9	112.0	21.4	89.4	4.1
-	111.9	113.4	110.7	21.4	83.9	4.0
10	106.4	104.9	107.8	21.4	2.06	3.9
10	109.5	110.4	108.8	21.0	88.5	4.1
10	105.4	105.3	105.7	20.1	89.5	3.9

Table 6. Annual summary of hybrids grown in 1959.

		Average Yield B	Bu./Acre	Maturity		
Hybrid	State	Western Wickliffe	Eastern Campbellsville	Harvest Ear Moisture	Erect	Ear
		Owensboro	Lexington			
		Hopkinsville	Quicksand	%	%	Ft.
Ž.	VRITOU					
PAG 401	88.9	93.7	83.9	15.1	80.5	3.7
AES 801	92.3	92.3		15.2		
Pioneer 319	100.7	101.5	99.5	15.4	88.2	3.8
Stull 101Y	101.8	96.5	106.9	15.5	86.4	3.9
Hagan H7	9.96	99.2	93.8	15.8	9.98	
DeKalb 869	89.7	95.2	84.0	15.8	85.2	3.7
Funk G-91	8.96	97.3	96.1	15.9	83.5	3.8
Cardinal 107	107.0	106.0	107.7	16.0	87.4	4.1
DeKalb 898A	95.3	95.5	94.8	16.0	76.7	
DeKa1b 805	102.6	108.5	96.5	16.1	8.98	3.5
Stull 101YA	108.5	105.3	111.4	16.2	82.2	
Ky 106A	84.8	86.3	83.0	16.2	78.6	
Hagan H9	107.5	104.7	110.0	16.3	6.68	4.1
US 13	97.6	9.96	98.4	16.3	70.8	
AES 809	97.3	99.1	95.2	16.6	89.5	3.4
DeKalb 812	91.8	88.7	94.7	16.6	87.5	3.6
PAG 434	104.7	103.6	105.6	16.8	87.8	3.9
Stull 100YA	109.9	108.6	110.9	16.8	87.4	4.1
Stull 100Y	105.7	108.0	103.3	16.9	89.2	
AES 805	102.6	104.2	100.7	16.9	86.4	
Funk G-134	97.9	102.2	•	16.9	84.1	3.7
DeKalb 837	6.46	8.46	8.46	2012	85.0	•
	1	1	4	3	Ą	•

	7 00	08.7	10000000000	17.1	93.8	
Unio L31	107.0	106.0	Page 1000	17.3		-
ky 105	101.5	99.2	103.6	17.4	82.5	3.8
Figure 1303	111.3	113.8			Section 2	
Broadbart 4028	109.4	110.3			Section 1	
	101.1	97.8			4007	2000
Fulls G-144	92.2	91.4	10000	17.7		4.1
Dioneer 312A	99.1	98.0				
	91.3	4.06				
nevalb 803A		95.3				
	107.0	111.0				
Pioneer 309A	105.2	100.5				8000
	108.8	103.8				
	111.3	104.7	2000 6 (2)			4.7
Yellow Average	100.3	100.3	100.1	17.1	84.5	3.9
WHITE					ì	
Meacham M-3	89.3	89.5			/4.3	
КФ 205W	101.7	104.0	000		74.7	
S+111 400WC	110.5	112.4			80.4	
Meacham M-5	102.7	103.7			77.3	
S+111 400W	102.6	103.7			78.0	
11S 523W	101.1	102.5	99.5	17.6	81.4	3.9
Kv 204	103.8	102.0		•	85.5	•
Broadbent 337	112.4	114.3	2374	•	82.2	
	105.2	103.9	106.3	17.8	84.8	4.1
Meacham M-7	101.5	8.66		18.0	83.6	4.0
DeKalb 925	105.5	109.0		18.1	82.2	4.2
Cardinal 9	100.5	102.6	98,1	18.2	89.3	0.4
Funk G-512W	108.3	108.9	107.4	18.5	75.1	4.4
Stull 500W	106.3	104.8	107.6	18.7	79.9	4.0
White Average	103.7	104.4	102.7	17.4	9.08	4.1
Over-all average	101.3	101.4	100.8	17.2	83.4	4.0

Table 7. Reaction of hybrids to leaf blight diseases $\frac{1}{2}$

	Leaf Bli	Leaf Blight Resistance	ice - 1959	Leaf Bligh	Leaf Blight Resistance - 1957-9	- 1957-9
Hybrids	Southern	Northern	Stewarts	Southern	Northern	Stewarts
XELLOW						
AES 801	Fair	Fair	Poor	Poor	Fair	Poor
AES 805	Good	Fair	Good	Good	Good	Good
AES 809	Good	Good	Very Good			
Broadbent 402B	Very Good	Fair	Fair			
Cardinal 107	Good	Fair	Very Good			
DeKalb 803A	Good	Good	Poor			
DeKalb 805	Very Good	Good	Good	Very Good	Very Good	Very Good
DeKalb 812	Good	Poor	Fair			
DeKalb 837	Good	Fair	Good			
DeKalb 869	Fair	Fair	Poor			
DeKalb 898A	Poor	Fair	Poor			
DeKalb 1028	Good	Good	Very Good			
Funk G-91	Fair	Fair	Fair	Fair	Fair	Fair
Funk G-134	Good	Fair	Fair	Good	Good	Good
Funk G-144	Very Good	Fair	Very Good			
Funk G-711AA	Good	Fair	Very Good			
Hagan H7	Fair	Fair	Fair	Fair	Good	Fair
Hagan H9	Fair	Good	Fair	Fair	Good	Very Good
Ky 102	Poor	Good	Very Good			
Ky 103	Poor	Very Good	Good	Poor	Very Good	Fair
Ky 105	Very Good	Good	Good	Very Good	Fair	Good
Ky 106A	Fair	Fair	Fair	Fair	Good	Fair
Ohio L51	Good	Poor	Good	Good	Poor	Very Good
PAG 401	Poor	Poor	Fair	Poor	Poor	Poor
PAG 434	Fair	Very Good	Good		•	

| 70 | | T | |

 |
 | | | | | | |
 | | - | _ | | |
 | | | | , |
 | | | |
|-------|------------------------------------|---|--
--
--
--
---|--
---|--|--|--|--|--|--
--	--	--	---	--
--	-------	--	--	
Goo		Goo		

 |
 | | | | | | |
 | | Goog | Good | | |
 | | Good | | Good |
 | | | |
| Very | • | Very | Fair |

 | Good
 | | Good | | | Poor | | Good
 | | Verv | Very | Fair | |
 | Good | Very | Fair | Very | •
 | | poog | |
| pc | | , po | |

 |
 | | | | | | |
 | | | | | |
 | | | | |
 | | | |
| y Goo | | y Goo | q |

 | P
 | | P | | | P | |
 | | | . | . | |
 | y Goo | . 75 | 77 | u |
 | | u | |
| Ver | | Ver | Goo |

 | Goo
 | | Goo | | | Goo | | Poor
 | 1 | Fai | Fai | Poo | |
 | Ver | Goo | Good | Poor |
 | | Fair | |
| | | poo | |

 |
 | | | | | | |
 | | | | | |
 | | poo | | |
 | | | |
| poo | | ery G | air |

 | air
 | | air | | | JOC | | air
 | | air | poc | air | |
 | poo | ery G | oor | poo |
 | | poo | |
| Ģ | | Λ | H |

 | H
 | | E4 | | | Pe | | F.
 | i | F | ĕ | F | |
 | ĕ | Ve | Pc | ĕ |
 | | ĕ | |
| | | | |

 |
 | | | | | | |
 | | | | | |
 | | | | |
 | | | |
| | poog | | | poog

 |
 | | | | | | | poot
 | | | | | |
 | | | | poot | poor
 | poot | | |
| poo | ery (| poo | air | ery (

 | poo
 | poo | poo | poo | air | air | | erv (
 | air | poo | poo | poo | poo | poo
 | air | poo | air | ery. G | ery G
 | ery G | poo | |
| | | 9 | F |

 |
 | | 9 | | | ľ4 | | Λ
 | | | Ö | Q | Ö | Ö
 | | | | À |
 | | ŏ | |
| 9009 | 6000 | | | Good

 | Good
 | Good | | Good | | | |
 | Good | | | | |
 | Good | | Good | | Good
 | Good | | |
| Very | Very | Good | Good | Very

 | Very
 | Very | Fair | Very | Poor | Good | | Poor
 | Very | Good | Fair | Poor | Fair | Good
 | Very | Fair | Very | Poor | Very
 | Very | Good | |
| | | poo | |

 |
 | | | | | | |
 | | | po | | |
 | | po | | po | po
 | | | |
| po | po | ry Go | ir | po

 | ir
 | po | ir | po | · pc | ir | | ir
 | ir | ir | cy Go | lr. | lr. | po
 | pc | cy Go | ir. | .y Go | y Go
 | þ | po | |
| 9 | Go | Ve | Fa | Go

 | Fa
 | Go | Fa | Go | Go | Fa | | Fa:
 | Fa | Fa | Ve | Fai | Fa | 9
 | Goo | Ve | Fai | Ver | Ver
 | 9 | 909 | |
| | | | |

 |
 | | | | | | [+] |
 | | | | | |
 | | | | |
 | | | |
| | | | |

 |
 | | | | | | WHIT |
 | | | | | |
 | | | | |
 | | | |
| 309A | 309B | 312A | 319 | 1363

 | XO.
 | OYA | 17 | 1YA | 8Y | | | £ 337
 | 6 | 25 | 12W | | | 1-3
 | 1- 5 | 1-1 | | MC | DMC
 | M(| | |
| | | | eer | eer

 | 1 100
 | 1 100 | 1 10. | 1 10. | | 2 | | dbent
 | inal | 1b 92 | G-5] | 40 | 05W | ham N
 | ham N | ham N | 633W | 1 400 | 1 400
 | 1 500 | 23W | |
| Pion | Pion | Pion | Pion | Pion

 | Stul
 | Stul | Stul | Stul | Stul | US 1 | | Broa
 | Card | DeKa | Funk | Ky 2 | Ky 2 | Meac
 | Meac | Meac | PAG | Stul | Stul
 | Stul | US 5. | |
| | 309A Good Very Good Good Very Good | 309A Good Very Good Good
309B Good Very Good Very Good | 309A Good Very Good Good Good Very G | 309A Good Very Good Good Very Good <td>9A Good Very Good Good Good Very Goo</td> <td>309A Good Very Good Good Very Good Good Very Good</td> <td>9A Good Very Good Good Very Good</td> <td>er 309A Good Very Good Good Very Good<</td> <td>er 309A Good Very Good Good Very Good<</td> <td>er 309A Good Very Good Good Very Good<</td> <td>er 309A Good Very Good Good Very Good<</td> <td>er 309A Good Very Good Good Very Good<</td> <td>er 309A Good Very Good Good Very Good<</td> <td>er 309A Good Very Good Good Very Good Good Very Good</td> <td> A Good Very Good Good Good Very Good Cood Very Good Ver</td> <td> Good Very Good Good Good Good Good Very Good Very Good Good Cery Good</td> <td> Good Very Good Good Good Very Good Very Good Very Good Good Good Cood Good Cood Good Cood Fair Good Cood Cood Fair Good Cood Cood Fair Good Cood Fair Good Fair Fair Fair Fair Fair Fair Good Fair F</td> <td> Good Very Good Good Good Very Good Fair Good Good Good Fair Good Good Fair Good Good Good Fair Good Good Good Good Fair Fair Good Fair Fair Good Fair Fair</td> <td> Mark Good Very Good Good Very Go</td> <td> Good Very Good Good Good Very Good Fair Good Very Good Fair Good Very Good Good Fair Good Very Good Good Fair Good Fair Good Fair Good Very Good Fair Good Good Good Fair Good Good Good Fair Good Good Good Fair Good Fair Good Fair Good Good Good Good Fair Good Good Good Good Good Good Good Goo</td> <td> Good Very Good Good Good Very Good Good Good Very Good Go</td> <td> Good Very Good Good Good Very Good Good Very Good Very Good Good Very Good Very Good Very Good Very Good Good Very Good Good Very Good Good Very Good Good Fair Good Good Good Fair Good Fair Good Fair Good Fair Good Good Good Good Fair Good Good Good Good Good Fair Good Good Good Good Fair Good Good Good Fair Good Good Good Fair Good Good Fair Good Good Good Fair Good Good Good Fair Good Good Fair Good Good Good Fair Good Good Good Fair Good Good Good Fair Good Fair Good Good Good Good Good Fair Good G</td> <td> Good Very Good Good Good Good Good Very Good Fair Good Good Good Fair Good Fair Good Good Fair Good Fair Good Fair Good Fair Good Fair Fair Good Good Fair Good Good Good Fair Good Fair Good Good Good Good Fair Good Good Good Fair Good Good Good Fair Good Good Fair Fair Good Good Good Fair Fair Good Good Good Fair Fair Good Good Good Fair Fair Fair Fair Good Good Good Fair Fair Fair Good Good Good Fair Fair Fair Fair Good Good Good Fair Fair Fair Fair Fair Good Good Good Fair Fair Fair Fair Fair Good Good Good Fair Fair Fair Fair Fair Fair Good Good Good Fair Fair</td> <td> Good</td> <td> Good Very Good Good Good Very Good Fair Good Good Good Fair Good Good Fair Good Fair Good Fair Good Fair Good Fair Good Fair Fair Good Fair Good Fair Good Fair Fair Good Fair Fair Good Fair Fair Fair Good Fair Fair Good Fair Fair Fair Fair Good Fair Fai</td> <td> Good Very Good Good Good Very Go</td> | 9A Good Very Good Good Good Very Goo | 309A Good Very Good Good Very Good Good Very Good | 9A Good Very Good Good Very Good | er 309A Good Very Good Good Very Good< | er 309A Good Very Good Good Very Good< | er 309A Good Very Good Good Very Good< | er 309A Good Very Good Good Very Good< | er 309A Good Very Good Good Very Good< | er 309A Good Very Good Good Very Good< | er 309A Good Very Good Good Very Good Good Very Good | A Good Very Good Good Good Very Good Cood Very Good Ver | Good Very Good Good Good Good Good Very Good Very Good Good Cery Good | Good Very Good Good Good Very Good Very Good Very Good Good Good Cood Good Cood Good Cood Fair Good Cood Cood Fair Good Cood Cood Fair Good Cood Fair Good Fair Fair Fair Fair Fair Fair Good Fair F | Good Very Good Good Good Very Good Fair Good Good Good Fair Good Good Fair Good Good Good Fair Good Good Good Good Fair Fair Good Fair Fair Good Fair Fair | Mark Good Very Good Good Very Go | Good Very Good Good Good Very Good Fair Good Very Good Fair Good Very Good Good Fair Good Very Good Good Fair Good Fair Good Fair Good Very Good Fair Good Good Good Fair Good Good Good Fair Good Good Good Fair Good Fair Good Fair Good Good Good Good Fair Good Good Good Good Good Good Good Goo | Good Very Good Good Good Very Good Good Good Very Good Go | Good Very Good Good Good Very Good Good Very Good Very Good Good Very Good Very Good Very Good Very Good Good Very Good Good Very Good Good Very Good Good Fair Good Good Good Fair Good Fair Good Fair Good Fair Good Good Good Good Fair Good Good Good Good Good Fair Good Good Good Good Fair Good Good Good Fair Good Good Good Fair Good Good Fair Good Good Good Fair Good Good Good Fair Good Good Fair Good Good Good Fair Good Good Good Fair Good Good Good Fair Good Fair Good Good Good Good Good Fair Good G | Good Very Good Good Good Good Good Very Good Fair Good Good Good Fair Good Fair Good Good Fair Good Fair Good Fair Good Fair Good Fair Fair Good Good Fair Good Good Good Fair Good Fair Good Good Good Good Fair Good Good Good Fair Good Good Good Fair Good Good Fair Fair Good Good Good Fair Fair Good Good Good Fair Fair Good Good Good Fair Fair Fair Fair Good Good Good Fair Fair Fair Good Good Good Fair Fair Fair Fair Good Good Good Fair Fair Fair Fair Fair Good Good Good Fair Fair Fair Fair Fair Good Good Good Fair Fair Fair Fair Fair Fair Good Good Good Fair Fair | Good | Good Very Good Good Good Very Good Fair Good Good Good Fair Good Good Fair Good Fair Good Fair Good Fair Good Fair Good Fair Fair Good Fair Good Fair Good Fair Fair Good Fair Fair Good Fair Fair Fair Good Fair Fair Good Fair Fair Fair Fair Good Fair Fai | Good Very Good Good Good Very Go |

1/ Resistance rating scale, excellent, very good, good, fair, and poor.

WHICH HYBRID SHOULD I PLANT?

- A. Choose between white and yellow corn.
 - 1. Yield of white and yellow hybrids is equal.
 - 2. Feeding value is equal when ration contains protein supplement.
 - 3. Midseason white hybrids may not pick as clean as earlier maturing yellow hybrids.
 - 4. White corn usually sells at a premium price.
 - 5. White hybrids may not stand as well as yellow hybrids of equal maturity.
- B. Decide on maturity of hybrid.
 - 1. A full-season hybrid will yield more than an early hybrid.
 - 2. If corn is to be followed by fall sown small grains, plant an early or midseason hybrid.
- C. Choose hybrid on basis of over-all performance.
 - Performance information from 3 years of testing is superior to information from 1 year.
 - 2. Performance information from testing at 6 locations per year is superior to information from 3 locations per year.
 - 3. Small differences among hybrids may not be important.
 - 4. Consider maturity, erect plants, ear height and disease information as well as yield before making a selection.
 - 5. A good standing midseason hybrid which yields less than a full-season hybrid may be the best choice.
- D. Minimize importance of price in buying seed corn. "
 - Cost of seed is very, very small in comparison to total cost of producing an acre of corn.
- E. Buy enough seed to plant a minimum of 14,000 to 16,000 kernels per acre.