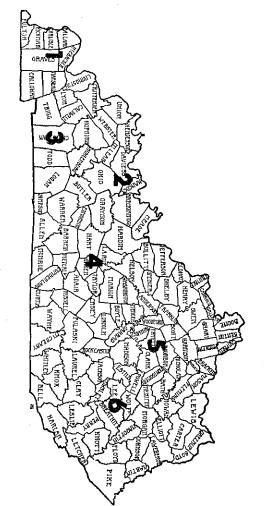
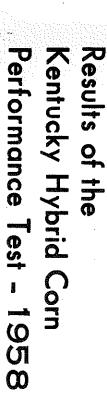
TESTING LOCATIONS OF

THE KENTUCKY HYBRID CORN PERFORMANCE TEST

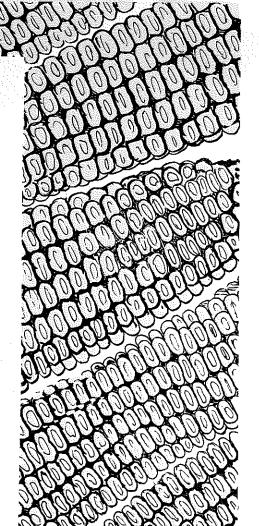


Eastern	Western	Area
4. Campbellsville5. Lexington6. Quicksand	 Wickliffe Owensboro Hopkinsville 	Location
Frank Noe Ky. Agr. Exp. Sta. Robinson Agr. Exp. Substation	James Wilson Beverly Gregory Pennyrile Grain Imp. Ass'n. W. G. Duncan, III	Cooperator

10M-1-59



By F.A. LOEFFEL and J.F. SHANE



PROGRESS REPORT 74

(Filing Code: 1-1)

AGRICULTURAL EXPERIMENT STATION
LEXINGTON

JANUARY 1959

WHICH HYBRID SHOULD I PLANT?

- A. Choose between white and yellow corn.
- 1. Yield of white and yellow hybrids is equal.
- 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.
- White hybrids may not stand as well as yellow hybrids of equal maturity.
- B. Decide on maturity of hybrid.
- A full-season hybrid will yield more than an early hybrid.
- If corn is to be followed by fall sown small grains, plant an early or midseason hybrid.
- C. Choose hybrid on basis of balanced performance.
- Performance information from 3 years of testing is superior to information from 1 year.
- Performance information from testing at 6 locations per year is superior to information from 3 locations per year.
- Small differences among hybrids may not be important.
- Look at maturity, erect plants and ear height information as well as yield before making a selection.
- 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 12,000 to 14,000 plants per acre.

RESULTS OF THE KENTUCKY HYBRID CORN PERFORMANCE TEST IN 1958

F. A. Loeffel and J. F. Shane

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 95 percent of the Kentucky corn acreage was planted to hybrids in 1958.

compared to 36 percent in 1957. Seventy-five percent of the acreage was planted before May 13 ed since records were started in 1889. Severe floodstate. July was the second wettest July ever recordand unusually frequent rain fell over the entire ed cultivation. For one month following July 4, pecially weedy due to frequent showers which hamperern fourth of the state. Early plantings were es-3 although only 50 percent was planted in the westcent of the corn in the state was planted by June for corn in all parts of the state. Only 2 pernormal and 2.16 inches above 1957. tember) totaled 28.72 inches, 5.81 inches above Kentucky for the growing season (April through Sep-Mississippi river bottoms. The average rainfall in ing in July damaged corn, especially in the Ohio and field work was generally at a standstill as abundant the state registered above-normal amounts of rain-A cool wet spring delayed land preparation

The experiment grown at Wickliffe was not harvested this year due to the July flood. Although the growing season was delayed, the abundant moisture permitted a statewide record yield of 49.0 bushels per acre to be established. The average yield for all hybrids grown at five locations in 1958 was 109.3 bushels. The average yield in western Kentucky was 109.2 bushels and 109.4 bushels in eastern Kentucky. Lexington had the highest test average of 121.0 bushels and Campbellsville the lowest with 86.7 bushels.

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 back 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 summary. Similarly the yields from Campbellsville, Lexington, and Quicksand were averaged for the eastern Kentucky summary. The experiment grown at Wickliffe was not harvested in 1958 due to a July flood.

Forty-nine 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; three-way cross, 3X and a single cross as 2X. Seed of a single cross hybrid sells at a premium due to increased costs of producing seed. Forty-six double crosses, 2 three-way 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.

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 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.

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 can not

be predicted at the time of planting a farmer should plant a hybrid which has a good performance in an "average" season. The results obtained from a large number of experiments grown in different years at different locations are the best estimate of hybrid performance for an average season. The information presented in Table 4 is the average of 17 experiments grown in 1956, 1957, and 1958. The information presented in Table 5 is the average of 11 experiments grown in 1957 and 1958. Table 6 contains information obtained from 5 experiments grown in 1958. Therefore, the information contained in Table 4 is the best estimate available for comparing the performance of corn hybrids for average growing conditions in Kentucky.

It is suggested that new hybrids be grown frequently on a trial basis in comparison with the hybrid or hybrids presently grown. Hybrids being compared should be grown in the same field using similar management practices. Yield should be determined at harvest and other observational notes recorded during the growing season on the hybrids. If this suggestion is followed, a valid decision may be made which will increase the profit of growing corn.

LANT and COMPARE

The final answer is the performance of corn hybrids on your farm

Table 1. Hybrids tested in 1958.

Table 1. Continued.

Hybrid AES 801 805	Color Y	Cross	Source of Hybrids Agricultural Experiment Station (North Central)	Hybrid ————————————————————————————————————	rid 203 204	Co	Color C W
Bartlett & O'Bryan W-23 Y-120	KE	X X X 4 X 4 X 4 X 4 X 4 X 4 X 4 X 4 X 4	Bartlett & O'Bryan Owensboro, Kentucky	Меас	Meacham M-5W M-7W	cham M-5W W M-7W W	M-5W M-7W
Broadbent 337 402A 402B	нчя	X X X X X X X X X X X X X X X X X X X	Broadbent Hybrids Cobb, Kentucky	0h L51	L51	L51 Y	
DeKalb 803 803A	K K	3X	DeKalb Agricultural Ass'n. DeKalb,	P.A.G	.G. 401 444	•	. 401 444 785
810 852	K K I	X X X		•	631W 633W	24 24	W W
925 1002	KE	x x		Pio	Pioneer 309A	309A	309A
1028	⊬	4 X			312A 319		H H
Funk G-91 G-134	≺ ⊬	4X 4X	Company, Eldred,		332-2A	332-2A Y	
G-144	5 K	× ×	Illinois	Stull	11 85Y 100Y		100Y
G-711	H :	4 X			101X VA001		кк
Hagan H-7 H-9	K K	4x 4x	R. M. Hagan Owensboro, Kentucky		400W		£
Ind 750B	E.	4X	Purdue University	US	13 523W	13 Y 523W W	3W
844D	н	4 X	Agricultural Experiment Station, Lafayette Indiana	V.P.I	.I. 646	•	646
K y 103 105 106A	**	XX XX X4 X4	University of Kentucky Agricultural Experiment Station, Lexington,				
		(10)					(11)

Hybrid	Pedigree
AES 801	(WF9 x B7)(B10 x B14)
AES 805	(WF9 x 38-11)(C103 x Oh45)
Ind 750B	(K41 x K44)(33-16 x H21)
Ind 844D	(WF9 x 38-11)(Tr x Hy)
Ky 103	(WF9 x 38-11)(K4 x L317)
Ky 105	(T8 x CI21E)(38-11 x Oh 7B)
	(WF9 \times 38-11)(CI21E \times 0h 41) (Ky 27 \times Ky 122)(33-16 \times Ky 49)
0h L51	$(K64 \times 33-16)(K55 \times Ky 201)$ $(WF9 \times Hy)(Oh 43 \times Oh 45)$
U.S. 13	(WF9 x 38-11)(Hy x L317)
U.S. 523W	(K55 x K64)(Ky 27 x Ky 49)
V.P.I. 646	$(WF9 \times T8)(38-11 \times C103)$

Table 3. Agronomic information pertaining to testing locations in 1958.

		Fertilizer	Plants per	Date	Date	Experi Averag	
Loc	ation	Applied	Acre	Planted	Harvested	Yield	Moisture
1.	Wickliffe	Test not harvested	because o	of flood.			
2.	Owensboro	200# 3-12-12 80# Anhydrous	11,750	May 14	Oct. 2	107.8	21.8
3.	Hopkinsville	200# 6-42-0 138# Anhydrous	11,750	May 15	Oct. 8	111.2	20.2
4.	Campbellsville	200# 10-10-10 12T Manure	11,750	May 16	Sept. 29	86.7	23.3
5.	Lexington	500# 15-15-15	11,750	May 9	Oct. 4	121.0	26.3
6.	Quicksand	300# 0-30-30 400# Am. Nitrate	14,500	May 25	Oct. 16	120.2	26.6

Table 4. Three-year summary of hybrids grown in 1956, 1957 and 1958.

		Average Yield B		<u>Maturity</u>	- .	E
Hybrid	State		Eastern Campbellsville	Harvest Ear Moisture	Erect Plants	Ear Heigl
	•	Owensboro	Lexington			
		Hopkinsville	Quicksand	7,	<u>%</u>	Ft.
AELLOM						
PAG 401	88.7	84.9	92.0	17.5	92.5	3.
	### State Weatern Wickliffe Owensboro Hopkinsvi ### WELLOW 88.7		85.0	17.7	96.1	3.
AES 801			93.7	18.5	92.9	3.
Hagan H7			87.8	18.9		3.
Ind. 844D			91.0	18.9		4.
US #13	89.0	00.0	91.0	10.7		
Stull 100Y	95.5	89.9	100.4	19.0		3.
Ky 103			88.0	19.0	Erect Plants 7 92.5 96.1 92.9 90.5 88.3 96.5 88.7 96.3 97.2 94.0 95.7 93.5 96.5 94.9 92.1 2 96.3 85.2 92.8 9 92.1 2 93.1 5 93.6 4 93.1 5 93.6 4 93.1 5 93.6 6 94.2 87.0 91.3 90.8 6 94.2 89.6 89.8 99.8 99.8 99.8	4.
			102.5	19.0	96.3	4.
Stull 101Y			103.8	19.0	97.2	3.
DeKalb 805			98.2	19.2		3.
Funk G91	92.8	00.7	70.2	17.2		
Funk G134	94.2	93.9	94.5	19.3		3.
Bartlett & O'Bryan Y-120		88.9	95.6	19.4		3.
Oh L51		86.7	96.1	19.5	96.5	3.
			98.0	19.7	94.9	3
AES 805			91.9	19.7	92.1	3
Ку 106А	33.5	• • • • • • • • • • • • • • • • • • • •				
				of the second		
PAG 444	93.6	89.8	97.0	20.2	96.3	. 3
DeKa1b 1002			95.2	20.4	85.2	4
Broadbent 402A			93.8	20.5		
Ky 105			102.6	20.9		
Pioneer 309A		90.1	99.5	23.7		4
Yellow Average	92.0	88.3	95.3	19.5	93.6	-
_				•		
Stull 400W	96,2	95.6	96.8	19.4	93:1	
Ind. 750B		92.0	96.5	20.2	93.1	
Ку 203			95.7	20.2		
Meacham M-5W			99.0	20.4		
			100.1	20.6		
DeKalb 925	99.0	77.7	100.1	20.0	,0.0	
Ку 204		89.0 ~	96.0	20.6		
US 523W	96.7	95.9.	97.5	20.6		
Bartlett & O'Bryan W-23	89.8	86.4	92.9	20.8		
Broadbent 337		96.0	93.5	20.9		
Funk G512W		97.2	98.7	20.9	89.0	•
D10 (377)	96.6	95.8	97.3	21.2	96.1 92.9 90.5 88.3 96.5 88.7 96.3 97.2 94.0 95.7 93.5 96.5 94.9 92.1	
	88.4	88.4	88.4	21.3		
PAG 633W PAG 631W						
	94.6	93.1	96.0	20.6	91.3	

Table 5. Two-year summary of hybrids grown in 1957 and 1958.

PAC A01 PILOW	Hybrid	<u>State</u>		~~···			Ear
PAG 401 YELLON PLONE PAG 401			Wickliffe		Trans Mada Assessa		
No. Page P					tar Moisture	Plants	Heigh
FAG 401 YRILION FAG 401 YRILION FAG 401 91.6 93.7 89.9 18.3 91.0 3. AKS 801 87.2 89.4 85.4 19.1 95.6 3. AKS 801 87.2 89.4 85.4 19.1 95.6 3. AKS 801 87.2 89.4 85.4 19.1 95.5 3. Ind. 8440 89.6 89.8 88.4 19.7 90.5 3. US \$13 93.3 97.5 89.9 19.8 88.5 4 20.1 96.5 4. Ky 103 92.1 96.0 88.9 20.2 88.4 20.1 96.5 4. Ky 103 92.1 96.0 88.9 20.2 98.8 88.4 20.1 96.5 4. Ky 103 92.1 96.0 88.9 20.2 98.1 4. Funk 691 96.7 94.0 98.9 20.3 93.9 9.1 9.8 8.4 20.1 96.5 4. Funk 691 96.7 94.0 98.9 20.3 93.9 9.1 9.8 8.4 20.1 96.1 4. Funk 691 96.7 94.0 98.9 20.3 93.9 9.1 9.8 8.4 20.1 96.1 4. Funk 691 96.7 94.0 98.9 20.3 93.9 9.1 9.8 8.0 20.2 88.4 4. Funk 691 96.7 94.0 97.2 92.9 20.4 93.3 3. Bartlett & O'Bryan Y-120 94.9 97.2 92.9 20.4 93.3 3. Bartlett & O'Bryan Y-120 94.9 97.2 92.9 20.4 93.3 3. Funk 6134 98.8 103.4 95.0 20.4 97.1 3. Funk 6134 98.8 103.4 95.0 20.4 97.1 3. Funk 6134 98.8 103.4 95.0 20.4 95.1 3. Ky 106A 89.2 90.2 88.4 20.8 91.5 3. Ky 106A 98.2 96.2 96.5 96.0 20.9 93.3 3. Ky 106A 98.9 20.9 96.1 10.1 10.1 2. PAG 444 100.1 10.1 20.9 10.1 5 20.9 94.6 2.0 6.0 15.1 10.0 8. PAG 444 100.1 10.1 20.9 10.1 5 20.9 94.6 2.0 6.0 15.1 10.0 8. Funk 645 100.8 109.5 93.6 21.9 92.0 4. PAG 444 100.1 10.1 20.9 99.9 22.3 96.1 4. PAG 445 1002 100.6 108.4 94.1 21.6 86.7 4. PAG 485 100.8 109.5 93.6 21.9 92.0 4. PAG 486 100.8 109.5 93.6 21.9 92.0 4. PAG 49.1 100.9 103.6 98.6 21.9 99.9 22.3 96.1 4. Flomes 312A 101.4 104.6 98.7 21.9 99.9 22.3 96.1 4. Flomes 312A 101.4 104.6 98.7 21.9 99.9 22.3 96.1 4. Flomes 312A 101.4 104.6 98.7 21.9 99.9 22.3 96.1 4. Flomes 312A 101.4 104.6 98.7 21.9 99.9 22.3 96.1 4. Flomes 312A 10.0 10.0 10.0 1.0 1.0 1.0 1.0 1.0 1.0							
PAC 401 91.6 93.7 89.9 18.3 91.0 3 Pioneer 319 100.0 99.4 100.5 18.7 94.7 3 ARS 801 87.2 89.4 185.4 19.1 95.6 3 ARS 801 87.2 96.1 92.7 19.4 91.5 3 Ind. 844D 89.0 89.8 88.4 19.7 90.5 3 Ind. 844D 89.0 89.8 88.5 4 Ind. 854D 89.9 19.8 88.6 103.4 103.8			Hopkinsville	Quicksand	%	%	Ft.
PAC 401 91.6 93.7 89.9 18.3 91.0 3 Pioneer 319 100.0 99.4 100.5 18.7 94.7 3 ARS 801 87.2 89.4 185.4 19.1 95.6 3 ARS 801 87.2 96.1 92.7 19.4 91.5 3 Ind. 844D 89.0 89.8 88.4 19.7 90.5 3 Ind. 844D 89.0 89.8 88.5 4 Ind. 854D 89.9 19.8 88.6 103.4 103.8	MOT TOEL						
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Hagan H7 94.2 96.1 92.7 19.4 51.5 3. Ind. 844D 89.0 89.8 88.4 19.7 90.5 3. Stull 101Y 101.2 104.7 98.4 20.1 96.5 4. Ky 103 92.1 96.0 88.9 20.2 88.4 4. Funk 691 96.7 94.0 98.9 20.3 95.9 3. Bartlett & O'Bryan Y-120 94.9 97.2 92.9 20.4 93.3 3. Bartlett & O'Bryan Y-120 94.9 97.2 92.9 20.4 93.3 3. Broadbent 402A 93.0 95.7 90.9 20.4 92.8 3. Funk 6134 98.8 103.4 95.0 20.4 95.1 3. Funk 6134 98.8 103.4 95.0 20.4 95.1 3. Funk 6134 98.8 103.4 95.0 20.9 95.1 3. Funk 6134 98.8 103.4 95.0 20.9 95.1 3. Funk 6134 98.8 103.4 95.0 20.9 95.3 3. Ky 106A 89.2 90.2 88.4 20.8 91.5 3. Ky 106A 89.2 90.2 88.4 20.8 91.5 3. Ky 106A 89.2 90.2 88.4 20.8 91.5 3. Funk 61 1002 100.6 108.4 94.1 21.6 86.7 4. Funk 61 1002 100.6 108.4 94.1 21.6 86.7 4. Flomeer 312A 101.4 104.6 98.7 21.9 95.0 3. Flowers 12A 101.4 104.6 98.7 21.9 95.0 3. Flowers 309A 100.9 103.6 98.6 24.4 97.6 4. Flomeer 312A 101.4 104.6 98.7 21.9 95.0 3. Flowers 309A 100.9 103.6 98.6 24.4 97.6 4. Flomeer 312A 101.4 104.6 98.7 21.9 95.0 3. Flowers 309A 100.9 103.6 98.6 24.4 97.6 4. Flowers 309A 100.9 103.6 98.6 24.4 97.6 4. Flowers 309A 100.9 103.6 98.6 24.4 97.6 4. Flowers 309A 100.2 100.1 101.2 99.9 3.6 21.9 99.0 3. Funk 6312W 100.3 105.0 96.4 21.9 99.7 3. Funk 6312W 100.3 105.0 96.4 21.9 99.7 3. Funk 6312W 100.3 100.4 100.4 99.8 22.0 3 92.5 4. Flowers 309A 100.9 103.6 98.6 24.4 97.6 4. Flowers 309A 100.9 103.6 98.6 24.4 97.6 4. Flowers 309A 100.9 103.6 98.6 24.4 97.8 24. Flowers 309A 100.9 103.6 98.6 24.2 20.3 92.5 4. Flowers 309A 100.9 100.9 100.9 100.9 100.9 100.9 100.9 100.9 100.9 100.9 100.9 100.9 100.9 10							3.7
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Stull 101Y 101.2 104.7 98.4 20.1 96.5 4. Ky 103 92.1 96.0 88.9 20.2 88.4 4. Stull 100Y 102.9 104.2 101.8 20.2 96.1 4. Funk 691 96.7 94.0 98.9 20.3 93.9 3. Bartlett & O'Brysn Y-120 94.9 97.2 92.9 20.4 93.3 3. Broadbent 402A 93.0 95.7 90.9 20.4 92.8 3. DeKalb 805 105.1 106.7 103.8 20.4 97.1 3. Funk G134 98.8 103.4 95.0 20.4 97.1 3. Funk G134 98.8 103.4 95.0 20.4 95.1 3. DeKalb 805 96.2 96.5 96.0 20.9 95.1 3. Ky 106A 89.2 90.2 88.4 20.8 91.5 3. AES 805 96.2 96.5 96.0 20.9 93.3 3. WYI 646 102.1 102.9 101.5 20.9 94.6 3. Oh 151 99.3 97.7 100.7 21.1 97.2 3. PAG 444 100.1 101.2 99.2 21.5 95.2 3. DeKalb 1002 100.6 108.4 94.1 21.6 86.7 4. PAG 485 100.8 109.5 93.6 21.9 92.0 4. PAG 485 100.8 109.5 93.6 21.9 92.0 4. PAG 6485 100.8 109.5 93.6 21.9 92.0 4. PAG 6485 100.8 109.5 93.6 21.9 92.0 4. PAG 6485 100.8 109.5 93.6 21.9 95.0 3. Ky 105 105.4 112.0 99.9 22.3 96.1 4. PIONEET 312A 101.4 104.6 98.7 21.9 95.0 3. Ky 105 105.4 112.0 99.9 22.3 96.1 4. PIONEET 309A 100.9 103.6 96.6 24.4 97.6 4. Yellow Average 97.7 100.1 95.6 20.6 93.5 3. Stull 400W WHITE 102.3 109.7 96.2 20.3 92.5 4. Ky 203 101.2 108.2 95.5 21.4 88.3 4. Ky 204 98.8 102.4 95.8 21.9 93.7 3. Neacham M-5W 100.3 105.0 96.4 21.9 91.0 3. US 523W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Broadcham M-5W 100.3 105.0 96.4 21.9 93.7 3. PAG 633W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Broadcham M-7W 101.9 106.5 98.0 22.7 92.1 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.	Ind. 844D	89.0	89.8	88.4	19.7	90.5	3.5
Stull 101Y 101.2 104.7 98.4 20.1 96.5 4. Ky 103 92.1 96.0 88.9 20.2 88.4 4. Stull 100Y 102.9 104.2 101.8 20.2 96.1 4. Funk 691 96.7 94.0 98.9 20.3 93.9 3. Bartlett & O'Brysn Y-120 94.9 97.2 92.9 20.4 93.3 3. Broadbent 402A 93.0 95.7 90.9 20.4 92.8 3. DeKalb 805 105.1 106.7 103.8 20.4 97.1 3. Funk G134 98.8 103.4 95.0 20.4 97.1 3. Funk G134 98.8 103.4 95.0 20.4 95.1 3. DeKalb 805 96.2 96.5 96.0 20.9 95.1 3. Ky 106A 89.2 90.2 88.4 20.8 91.5 3. AES 805 96.2 96.5 96.0 20.9 93.3 3. WYI 646 102.1 102.9 101.5 20.9 94.6 3. Oh 151 99.3 97.7 100.7 21.1 97.2 3. PAG 444 100.1 101.2 99.2 21.5 95.2 3. DeKalb 1002 100.6 108.4 94.1 21.6 86.7 4. PAG 485 100.8 109.5 93.6 21.9 92.0 4. PAG 485 100.8 109.5 93.6 21.9 92.0 4. PAG 6485 100.8 109.5 93.6 21.9 92.0 4. PAG 6485 100.8 109.5 93.6 21.9 92.0 4. PAG 6485 100.8 109.5 93.6 21.9 95.0 3. Ky 105 105.4 112.0 99.9 22.3 96.1 4. PIONEET 312A 101.4 104.6 98.7 21.9 95.0 3. Ky 105 105.4 112.0 99.9 22.3 96.1 4. PIONEET 309A 100.9 103.6 96.6 24.4 97.6 4. Yellow Average 97.7 100.1 95.6 20.6 93.5 3. Stull 400W WHITE 102.3 109.7 96.2 20.3 92.5 4. Ky 203 101.2 108.2 95.5 21.4 88.3 4. Ky 204 98.8 102.4 95.8 21.9 93.7 3. Neacham M-5W 100.3 105.0 96.4 21.9 91.0 3. US 523W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Broadcham M-5W 100.3 105.0 96.4 21.9 93.7 3. PAG 633W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Broadcham M-7W 101.9 106.5 98.0 22.7 92.1 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.	P 110 #12	52.2	07.5	20.0			
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Stull 100Y							4.0
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Bartlett & O'Bryan Y-120 94.9 97.2 92.9 20.4 93.3 3 3 Broadbent 402A 93.0 95.7 90.9 20.4 92.8 3 3 5 DeKalb 805 105.1 106.7 103.8 20.4 97.1 3 5 DeKalb 805 105.1 106.7 103.8 20.4 97.1 3 5 DeKalb 852 95.4 97.7 93.5 20.5 90.5 3. Ky 106A 89.2 90.2 88.4 20.8 91.5 3. AES 805 96.2 96.5 96.5 86.4 20.9 93.3 3 3. Hagan H9 107.5 110.8 104.8 20.9 95.2 4 4 VPI 646 102.1 102.9 101.5 20.9 94.6 3 3 Oh L51 99.3 97.7 100.7 21.1 97.2 3 PAG 444 100.1 101.2 99.2 21.5 95.2 3 DeKalb 1002 100.6 108.4 94.1 21.6 86.7 4 Pioneer 312A 101.4 104.6 98.7 21.9 95.0 3 Ky 105 105.4 112.0 99.9 22.3 96.1 4 Pioneer 309A 100.9 103.6 98.6 24.4 97.6 4 Pioneer 309A 100.9 103.6 98.6 24.4 97.6 4 Yellow Average 97.7 100.1 95.6 20.6 93.5 3 WHITE Stull 400W 102.8 107.8 98.6 21.2 92.2 3 Ky 203 101.2 108.2 95.5 21.4 88.3 4 Ky 203 101.2 108.2 95.5 21.4 88.3 4 Ky 203 101.2 108.2 95.5 21.4 88.3 4 Ky 204 98.8 102.4 95.8 21.9 93.7 3 US 523W 103.4 112.5 95.9 21.9 98.6 22.0 91.2 4 Functional Field Stull 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9							4.(
Broadbent 402A 93.0 95.7 90.9 20.4 92.8 3.0 pekalb 805 105.1 106.7 103.8 20.4 97.1 3.5 puk G134 98.8 103.4 95.0 20.4 95.1 3.5 puk G134 98.8 103.4 95.0 20.4 95.1 3.5 puk G134 98.8 103.4 95.0 20.4 95.1 3.5 puk G134 98.8 103.4 95.0 20.5 90.5 3.5 3.5 puk G134 97.7 93.5 20.5 90.5 3.5 puk G134 97.7 93.5 20.5 90.5 3.5 puk G134 97.7 93.5 20.5 90.5 3.5 puk G134 97.7 93.5 20.9 95.2 4.5 puk G134 99.2 96.5 96.0 20.9 95.2 4.5 puk G134 99.2 20.9 95.2 4.5 puk G134 99.3 97.7 100.7 21.1 97.2 3.5 puk G134 99.3 99.7 100.6 108.4 94.1 21.6 86.7 4.5 puk G134 99.5 93.6 21.9 92.0 4.5 puk G134 99.5 93.6 21.9 93.0 3.5 puk G134 99.5 puk G134 99.5 93.6 21.9 93.0 3.5 puk G134 99.5 puk G134 99.5 93.6 21.9 93.0 3.5 puk G134 99.5 pu	Funk G91	96.7	94.0	98.9	20.3	93.9	3.7
Broadbent 402A 93.0 95.7 90.9 20.4 92.8 3.0 pekalb 805 105.1 106.7 103.8 20.4 97.1 3.5 puk G134 98.8 103.4 95.0 20.4 95.1 3.5 puk G134 98.8 103.4 95.0 20.4 95.1 3.5 puk G134 98.8 103.4 95.0 20.4 95.1 3.5 puk G134 98.8 103.4 95.0 20.5 90.5 3.5 3.5 puk G134 97.7 93.5 20.5 90.5 3.5 puk G134 97.7 93.5 20.5 90.5 3.5 puk G134 97.7 93.5 20.5 90.5 3.5 puk G134 97.7 93.5 20.9 95.2 4.5 puk G134 99.2 96.5 96.0 20.9 95.2 4.5 puk G134 99.2 20.9 95.2 4.5 puk G134 99.3 97.7 100.7 21.1 97.2 3.5 puk G134 99.3 99.7 100.6 108.4 94.1 21.6 86.7 4.5 puk G134 99.5 93.6 21.9 92.0 4.5 puk G134 99.5 93.6 21.9 93.0 3.5 puk G134 99.5 puk G134 99.5 93.6 21.9 93.0 3.5 puk G134 99.5 puk G134 99.5 93.6 21.9 93.0 3.5 puk G134 99.5 pu	Bartlett & O'Bryan V-120	94 Q	97 2	929	20. /	02.2	2 *
Dekalb 805 105.1 106.7 103.8 20.4 97.1 3.8 Punk 6134 98.8 103.4 95.0 20.4 95.1 3.9 Dekalb 852 95.4 97.7 93.5 20.5 90.5 3.0 Ky 106A 89.2 90.2 88.4 20.8 91.5 3.4 AES 805 96.2 96.5 96.0 20.9 93.3 3.3 3.4 SES 805 96.2 96.5 96.0 20.9 93.3 3.3 3.4 SES 805 96.2 96.5 96.0 20.9 95.2 4.0 VPI 646 102.1 102.9 101.5 20.9 94.6 3.0 Oh L51 99.3 97.7 100.7 21.1 97.2 3.0 Dekalb 1002 100.6 108.4 94.1 21.6 86.7 4.0 PAG 445 100.8 109.5 93.6 21.9 92.0 4.0 PAG 485 100.8 109.5 93.6 21.9 92.0 4.0 PAG 485 100.8 109.5 93.6 21.9 92.0 3.0 Ky 105 105.4 112.0 99.9 22.3 96.1 4.0 Pioneer 319A 100.9 103.6 98.6 24.4 97.6 4.0 Pioneer 309A 100.9 103.6 98.6 24.4 97.6 4.0 Pioneer 309A 100.9 103.6 98.6 24.4 97.6 4.0 Pioneer 309A 100.9 103.6 98.6 20.6 93.5 3.0 WHITE Stull 400W 102.8 107.8 98.6 21.9 93.7 3.0 Ky 203 101.2 108.2 95.5 21.4 88.3 4.0 Ky 204 98.8 102.4 95.8 21.9 93.7 3.0 Neacham M-5W 100.3 105.0 96.4 21.9 93.7 3.0 Neacham M-5W 100.3 105.0 96.4 21.9 99.8 22.0 91.2 4.0 Pioneer 3192 106.2 95.5 21.4 88.3 4.0 Pioneer 3192 106.3 114.2 99.8 22.0 91.2 4.0 Pioneer 3192 106.6 112.4 92.5 22.1 99.7 91.0 3.0 PAG 633W 101.0 109.2 94.3 22.4 92.6 3.0 PAG 633W 101.0 109.2 94.3 22.4 92.6 3.0 PAG 631W 88.7 96.2 82.5 22.9 90.7 4.0 White Average 100.4 107.2 94.8 21.9 91.3 4.0 PAG 631W 88.7 96.2 82.5 22.9 90.7 4.0 PAG							
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DeKalb 852 95.4 97.7 93.5 20.5 90.5 3. Ky 106A 89.2 90.2 88.4 20.8 91.5 3. AES 805 96.2 96.5 96.0 20.9 93.3 3. Hagan H9 107.5 110.8 104.8 20.9 95.2 4. VPI 646 102.1 102.9 101.5 20.9 94.6 3. Oh L51 99.3 97.7 100.7 21.1 97.2 3. PAG 444 100.1 101.2 99.2 21.5 95.2 3. DeKalb 1002 100.6 103.4 94.1 21.6 86.7 4. PAG 485 100.8 109.5 93.6 21.9 92.0 4. Pioneer 312A 101.4 104.6 98.7 21.9 95.0 3. Ky 105 105.4 112.0 99.9 22.3 96.1 4. Pioneer 309A 100.9 103.6 98.6 24.4 97.6 4. Yellow Average 97.7 100.1 95.6 20.6 93.5 3. WHITE Stull 400W 102.3 109.7 96.2 20.3 92.5 4. Ky 203 101.2 108.2 95.5 21.4 88.3 4. Ky 204 98.8 102.4 95.8 21.9 93.7 3. Meacham M-5W 100.3 105.0 96.4 21.9 91.0 3. US 523W 101.2 108.2 95.5 21.4 88.3 4. Ky 204 98.8 102.4 95.8 21.9 91.0 3. US 523W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Pokalb 925 106.3 114.2 99.8 22.0 91.2 4. Punk G512W 100.0 109.7 95.6 22.1 88.5 4. Punk G512W 100.0 109.7 95.6 22.1 88.5 4. Punk G512W 100.0 109.7 95.6 22.1 88.5 4. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.							
Hagan H9							3.8
AES 805 96.2 96.5 96.0 20.9 93.3 3. Hagan H9 107.5 110.8 104.8 20.9 95.2 4. VPI 646 102.1 102.9 101.5 20.9 94.6 3. Oh 1.51 99.3 97.7 100.7 21.1 97.2 3. PAG 444 100.1 101.2 99.2 21.5 95.2 3. DeKalb 1002 100.6 108.4 94.1 21.6 86.7 4. PAG 645 100.8 109.5 93.6 21.9 92.0 4. Pioneer 312A 101.4 104.6 98.7 21.9 95.0 3. Ky 105 105.4 112.0 99.9 22.3 96.1 4. Pioneer 309A 100.9 103.6 98.6 24.4 97.6 4. Yellow Average 97.7 100.1 95.6 20.6 93.5 3. WHITE Stull 400W 102.3 109.7 96.2 20.3 92.5 4. Ind. 750B 102.8 107.8 98.6 21.2 92.2 3. Ky 203 101.2 108.2 95.5 21.4 88.3 4. Ky 204 98.8 102.4 95.8 21.9 93.7 3. Meacham M-5W 100.3 105.0 96.4 21.9 91.0 3. US 523W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Funk G512W 100.4 102.0 109.7 95.6 22.1 91.8 8.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Funk G512W 102.0 109.7 95.6 22.1 88.5 4. Funk G512W 101.0 109.2 94.3 22.4 92.0 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. PAG 633W 101.0 109.2 94.8 21.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.	Dekaid 632	93.4	97.7	93.5	20.5	90.5	3.9
AES 805 96.2 96.5 96.0 20.9 93.3 3. Hagan H9 107.5 110.8 104.8 20.9 95.2 4. VPI 646 102.1 102.9 101.5 20.9 94.6 3. Oh 1.51 99.3 97.7 100.7 21.1 97.2 3. PAG 444 100.1 101.2 99.2 21.5 95.2 3. DeKalb 1002 100.6 108.4 94.1 21.6 86.7 4. PAG 645 100.8 109.5 93.6 21.9 92.0 4. Pioneer 312A 101.4 104.6 98.7 21.9 95.0 3. Ky 105 105.4 112.0 99.9 22.3 96.1 4. Pioneer 309A 100.9 103.6 98.6 24.4 97.6 4. Yellow Average 97.7 100.1 95.6 20.6 93.5 3. WHITE Stull 400W 102.3 109.7 96.2 20.3 92.5 4. Ind. 750B 102.8 107.8 98.6 21.2 92.2 3. Ky 203 101.2 108.2 95.5 21.4 88.3 4. Ky 204 98.8 102.4 95.8 21.9 93.7 3. Meacham M-5W 100.3 105.0 96.4 21.9 91.0 3. US 523W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Funk G512W 100.4 102.0 109.7 95.6 22.1 91.8 8.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Funk G512W 102.0 109.7 95.6 22.1 88.5 4. Funk G512W 101.0 109.2 94.3 22.4 92.0 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. PAG 633W 101.0 109.2 94.8 21.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.	Ky 106A	89.2	90.2	88.4	20.8	91.5	3.7
Hagan H9	•						3.6
VPI 646							• • •
VPI 646							
VPI 646							
VPI 646		107.5					
Oh L51 99.3 97.7 100.7 21.1 97.2 3. PAG 444 100.1 101.2 99.2 21.5 95.2 3. DeKalb 1002 100.6 108.4 94.1 21.6 86.7 4. PAG 485 100.8 101.4 104.6 98.7 21.9 95.0 4. Pioneer 312A 101.4 104.6 98.7 21.9 95.0 3. Ky 105 105.4 112.0 99.9 22.3 96.1 4. Pioneer 309A 100.9 103.6 98.6 24.4 97.6 4. Yellow Average 97.7 100.1 95.6 20.3 92.5 4. Yellow Average 97.7 100.1 95.6 20.3 92.5 4. Xhuil 400W 102.3 109.7 96.2 20.3 92.5 4. Ind. 750B 102.8 107.8 98.6 21.2 92.2 3. Ky 203 101.2 108.2 95.5 21.4 88.3 4. Wacham M-5W 100.3 105.0 96.4 21.9 91.0 3. US 523W 103.4 103.4 112.5 95.9 21.9 98.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Pronk G512W 102.0 109.7 95.6 22.1 91.8 4. PAG 633W 101.0 109.2 94.3 PAG 633W 101.0 109.2 94.8 21.9 91.3 4. White Average 100.4 107.2 94.8 21.9 91.3 4. White Average							4.2
PAG 444 100.1 101.2 99.2 21.5 95.2 3. DeKalb 1002 100.6 108.4 94.1 21.6 86.7 4. PAG 485 100.8 109.5 93.6 21.9 92.0 4. Pioneer 312A 101.4 104.6 98.7 21.9 95.0 3. Ky 105 105.4 112.0 99.9 22.3 96.1 4. Pioneer 309A 100.9 103.6 98.6 24.4 97.6 4. Yellow Average 97.7 100.1 95.6 20.6 93.5 3. WHITE Stull 400W 102.3 109.7 96.2 20.3 92.5 4. Ind. 750B 102.8 107.8 98.6 21.2 92.2 3. Ky 203 101.2 108.2 95.5 21.4 88.3 4. Ky 204 98.8 102.4 95.8 21.9 93.7 3. Meacham M-5W 100.3 105.0 96.4 21.9 91.0 3. US 523W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Broadbent 337 101.6 112.4 92.5 22.1 91.8 4. Funk G512W 102.0 109.7 95.6 22.1 88.5 4. Bartlett & O'Bryan W-23 95.2 99.3 91.8 22.3 94.2 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.							3.8
DeKalb 1002	UN LOI	99.3	97.7	100.7	21.1	97.2	3.I
DeKalb 1002	PAG 444	100.1	101.2	99.7	21 5	95.2	3.7
PAG 485							4.2
Pioneer 312A							
Ky 105 105.4 112.0 99.9 22.3 96.1 4. Pioneer 309A 100.9 103.6 98.6 24.4 97.6 4. Yellow Average 97.7 100.1 95.6 20.6 93.5 3. WHITE Stull 400W 102.3 109.7 96.2 20.3 92.5 4. Ind. 750B 102.8 107.8 98.6 21.2 92.2 3. Ky 203 101.2 108.2 95.5 21.4 88.3 4. Ky 204 98.8 102.4 95.8 21.9 93.7 3. Meacham M-5W 100.3 105.0 96.4 21.9 91.0 3. US 523W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Deckalb 925 106.3 19.7 95.6 22.1 98.5 4.							
Pioneer 309A 100.9 103.6 98.6 24.4 97.6 4. Yellow Average 97.7 100.1 95.6 20.6 93.5 3. WHITE Stull 400W 102.3 109.7 96.2 20.3 92.5 4. Ind. 750B 102.8 107.8 98.6 21.2 92.2 3. Ky 203 101.2 108.2 95.5 21.4 88.3 4. Ky 204 98.8 102.4 95.8 21.9 93.7 3. Meacham M-5W 100.3 105.0 96.4 21.9 91.0 3. US 523W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Broadbent 337 101.6 112.4 92.5 22.1 91.8 4. Funk G512W 102.0 109.7 95.6 22.1 91.8 4. Bartlett & O'Bryan W-23 95.2 99.3 91.8 22.3 94.2 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.							
Yellow Average 97.7 100.1 95.6 20.6 93.5 3. WHITE Stull 400W 102.3 109.7 96.2 20.3 92.5 4. Ind. 750B 102.8 107.8 98.6 21.2 92.2 3. Ky 203 101.2 108.2 95.5 21.4 88.3 4. Ky 204 98.8 102.4 95.8 21.9 93.7 3. Meacham M-5W 100.3 105.0 96.4 21.9 91.0 3. US 523W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Broadbent 337 101.6 112.4 92.5 22.1 91.8 4. Funk G512W 102.0 109.7 95.6 22.1 88.5 4. Bartlett & O'Bryan W-23 95.2 99.3 91.8 22.3 94.2 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	-						
WHITE Stull 400W	Tioneel Joya	100.9	103.0	90.0	24.4	97.6	4
Stull 400W 102.3 109.7 96.2 20.3 92.5 4. Ind. 750B 102.8 107.8 98.6 21.2 92.2 3. Ky 203 101.2 108.2 95.5 21.4 88.3 4. Ky 204 98.8 102.4 95.8 21.9 93.7 3. Meacham M-5W 100.3 105.0 96.4 21.9 91.0 3. US 523W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Broadbent 337 101.6 112.4 92.5 22.1 91.8 4. Funk G512W 102.0 109.7 95.6 22.1 88.5 4. Bartlett & O'Bryan W-23 95.2 99.3 91.8 22.3 94.2 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.	Yellow Average	97.7	100.1	95.6	20.6	93.5	3.8
Stull 400W 102.3 109.7 96.2 20.3 92.5 4. Ind. 750B 102.8 107.8 98.6 21.2 92.2 3. Ky 203 101.2 108.2 95.5 21.4 88.3 4. Ky 204 98.8 102.4 95.8 21.9 93.7 3. Meacham M-5W 100.3 105.0 96.4 21.9 91.0 3. US 523W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Broadbent 337 101.6 112.4 92.5 22.1 91.8 4. Funk G512W 102.0 109.7 95.6 22.1 88.5 4. Bartlett & O'Bryan W-23 95.2 99.3 91.8 22.3 94.2 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.	WHITE						
Ind. 750B		102.3	109 7	96.2	20 3	92 5	/, 1
Ky 203	Ind. 750B						
Meacham M-5W 100.3 105.0 96.4 21.9 91.0 3. US 523W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Broadbent 337 101.6 112.4 92.5 22.1 91.8 4. Funk G512W 102.0 109.7 95.6 22.1 88.5 4. Bartlett & O'Bryan W-23 95.2 99.3 91.8 22.3 94.2 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. Meacham M7W 101.9 106.5 98.0 22.7 92.1 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.	- Ku 203						
Meacham M-5W 100.3 105.0 96.4 21.9 91.0 3. US 523W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Broadbent 337 101.6 112.4 92.5 22.1 91.8 4. Funk G512W 102.0 109.7 95.6 22.1 88.5 4. Bartlett & O'Bryan W-23 95.2 99.3 91.8 22.3 94.2 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. Meacham M7W 101.9 106.5 98.0 22.7 92.1 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.	7 Ky 200						
US 523W 103.4 112.5 95.9 21.9 88.7 4. DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Broadbent 337 101.6 112.4 92.5 22.1 91.8 4. Funk G512W 102.0 109.7 95.6 22.1 88.5 4. Bartlett & O'Bryan W-23 95.2 99.3 91.8 22.3 94.2 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. Meacham M7W 101.9 106.5 98.0 22.7 92.1 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.							
DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Broadbent 337 101.6 112.4 92.5 22.1 91.8 4. Funk G512W 102.0 109.7 95.6 22.1 88.5 4. Bartlett & O'Bryan W-23 95.2 99.3 91.8 22.3 94.2 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. Meacham M7W 101.9 106.5 98.0 22.7 92.1 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.	rieacham M-JW	100.5	103.0	90.4	21.9	91.0	3.0
DeKalb 925 106.3 114.2 99.8 22.0 91.2 4. Broadbent 337 101.6 112.4 92.5 22.1 91.8 4. Funk G512W 102.0 109.7 95.6 22.1 88.5 4. Bartlett & O'Bryan W-23 95.2 99.3 91.8 22.3 94.2 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. Meacham M7W 101.9 106.5 98.0 22.7 92.1 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.	US 523W	103.4	112.5	95.9	21.9	88.7	4.1
Broadbent 337 101.6 112.4 92.5 22.1 91.8 4. Funk G512W 102.0 109.7 95.6 22.1 88.5 4. Bartlett & O'Bryan W-23 95.2 99.3 91.8 22.3 94.2 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. Meacham M7W 101.9 106.5 98.0 22.7 92.1 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.	DeKalb 925	106.3					4.0
Funk G512W 102.0 109.7 95.6 22.1 88.5 4. Bartlett & O'Bryan W-23 95.2 99.3 91.8 22.3 94.2 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. Meacham M7W 101.9 106.5 98.0 22.7 92.1 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.							4.0
Bartlett & O'Bryan W-23 95.2 99.3 91.8 22.3 94.2 3. PAG 633W 101.0 109.2 94.3 22.4 92.0 3. Meacham M7W 101.9 106.5 98.0 22.7 92.1 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.							4.3
Meacham M7W 101.9 106.5 98.0 22.7 92.1 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.							3.6
Meacham M7W 101.9 106.5 98.0 22.7 92.1 3. PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.	DAC 432H	101.0	100.0	01.0	20.4		
PAG 631W 88.7 96.2 82.5 22.9 90.7 4. White Average 100.4 107.2 94.8 21.9 91.3 4.							3.9
White Average 100.4 107.2 94.8 21.9 91.3 4.			•				3.8
	KAG ODIM	δδ./	96.2	82.5	22.9	90.7	4.0
Over-all Average 98.6 102.5 95.6 21.1 02.4 2	White Average	100.4	107.2	94.8	21.9	91.3	4.0
	Over-all Average	98.6	102.5	95 A	21 1	D0 /	3.9

Table 6. One-year summary of hybrids grown in 1958.

		Average Yield Bu		<u>Maturity</u>	P	TO ·-
Hybrid	State	<u>Western</u> Owensboro	<u>Eastern</u> Campbellsville	Harvest Ear Moisture	Erect Plants	Ear Heigh
		Hopkinsville	Lexington Quicksand	%	%	Ft.
YELLOW						
PAG 401	95.2	92.3	97.1	20.2	93.7	3.6
Pioneer 319	110.9	106.7	113.6	20.5	97.3	3.7
AES 801	94.7	90.8	97.3	21.0	97.2	3.6
US #13	101.8	103.0	101.1	21.6	92.4	4.1
Ind. 844D	95.9	95.5	96.2	21.7	91.8	3.5
Funk G91	107.5	100.2	112.4	21.8	95.8	3.7
Hagan H7	103.0	100.7	104.6	21.8	93.4	3.5
DeKalb 852	103.2	103.7	102.9	22.0	90.6	4.0
DeKalb 805	115.0	113.9	115.7	22,2	99.2	3.3
	102.3	99.0	104.5	22.3	97.5	3.2
Stull 85Y		105.7	103.2	22.3	93.2	4.2
Ку 103	104.2		113.6	22.4	97.9	3.9
Stull 101Y	112.5	111.0			93.7	3.6
VPI 646	115.1	109.2	119.0	22.6		
Stull 100YA	103.5	102.4	104.3	22.6	96.6	3.4
Funk G134	107.1	113.3	103.0	22.7	96.9	3.9
DeKalb 803	107.7	103.0	110.9	22.7	96.4	3.5
Bartlett & O'Bryan Yl20	104.2	102.4	105.4	22.8	95.0	3.5
Stull 100Y	116.0	113.2	117.9	22.9	96.9	4.0
Ку 106А	96.9	93.0	99.5	22.9	91.8	3.6
Hagan H9	120.7	115.3	124.3	23.0	96.9	4.2
Broadbent 402A	100.7	101.4	100.3	23.1	92.2	3.6
Pioneer 332-2A	112.5	111.7	113.0	23.2	97.6	4.2
					singnam granigasaan magaan sg	
DeKalb 810	107.2	107.7	106.9	23.3	97.9	3.4
DeKalb 803A	100.1	98.5	101.1	23.3	95.9	3.4
AES 805	111.3	109.9	112.3	23.4	94.5	3.7
DeKalb 1002	113.3	117.9	110.3	23.8	90.9	4.3
Pioneer 312A	109.8	111.3	108.8	24.0	97.9	3.7
Funk G144	105.7	104.9	106.2	24.1	97.7	3.4
Oh L51			115.7	24.2		3,1
	112.7	108.2			98.7	
PAG 444	110.2	109.0	111.1	24.6	98.1	3.6
Ky 105	119.9	121.0	119.3	25.0	98.3	4.6
Broadbent 402B	122.3	120.3	123.7	25.2	98.1	4.4
PAG 485	111.7	114.8	109.7	25.4	97.1	4.5
DeKalb 1028	117.5	122.5	114.2	27.3	90.1	4.6
Pioneer 309A	113.0	113.7	112.5	27.4	99.0	4.1
Funk G711	111.5	113.3	110.3	28.7	88.9	4.4
Yellow Average	108.2	107.2	108.9	23.3	95.5	3.8
WHITE						
Stull 400W	114.7	119.4	111.6	23.2	96.6	4.2
Ку 203	115.9	122.8	111.3	23.8	94.4	4.3
Ind. 750B	113.3	113.1	113.5	24.3	97.1	3.9
Ку 204	111.8	111.4	112.1	24.6	98.4	3.8
US 523W	119.3	120.6	118.4	24.7	96.1	4.1
DeKalb 925	117.4	121.7	114.5	24.8	97.7	4.0
	112.4	114.5	111.0	24.8	98.1	3.8
Meacham M-5					97.3	
PAG 633W	115.2	119.1	112.6	24.9		3.8
Funk G512W	116.3	120.1	113.8	24.9	94.4	4.4
Meacham M-7	112.4	112.3	112.5	25.3	98.3	3.7
PAG 631W	88.2	84.8	90.4	25.4	96.2	3.9
Bartlett & O'Bryan W23	106.0	109.0	104.0	25.6	99.1	3.8
D11	117.5	123.3	113.6	25.7	98.2	4.2
Broadbent 337			1			
White Average	112.3 109.3	114.8 109.2	110.7	24.8 23.7	97.0 95.9	4.1

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The average production of corn in Kentucky reached a new high in 1958. The average yield per acre was 49.0 bushels, 3 bushels higher than the previous record of 46.0 bushels established in 1956.

The first 40 bushel statewide average was made in Kentucky in 1948 when 41 bushels per acre were produced. The significance of this record becomes apparent when it is realized that an average yield of 30 bushels was not obtained in Kentucky until as recently as 1942. Only 3 times since that year have corn yields failed to reach an average of 30 bushels. The improved efficiency of corn production in Kentucky is indicated by the production figures for 1955 through 1958 of 41.0, 46.0, 41.0, and 49.0 bushels per acre.

Several factors are responsible for the greatly improved per acre yields in Kentucky. One factor is that high producing hybrids are being grown on more than 95 percent of the corn acreage in 1958. In 1942, only 22.7 percent of the state's corn acreage was in hybrids. Six years later it was 82.0 percent when the first 40-bushel corn crop was grown. The hybrids available for planting in 1958 were markedly superior to those which were available in 1942.

Other factors are the increased use of fertilizer, timeliness of field operations made possible by mechanization and the removal of land unsuited for corn from production.

Although progress has been made in improving the efficiency of corn production in Kentucky, much remains to be done. In the future, emphasis must be placed on the following factors which contribute to more efficient production:

- 1. Increase the number of plants per acre.
- Insure adequate fertility.
- Discourage corn planting in June and July.
- Encourage the acceptance of newly developed superior hybrids.

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(23)

(22)