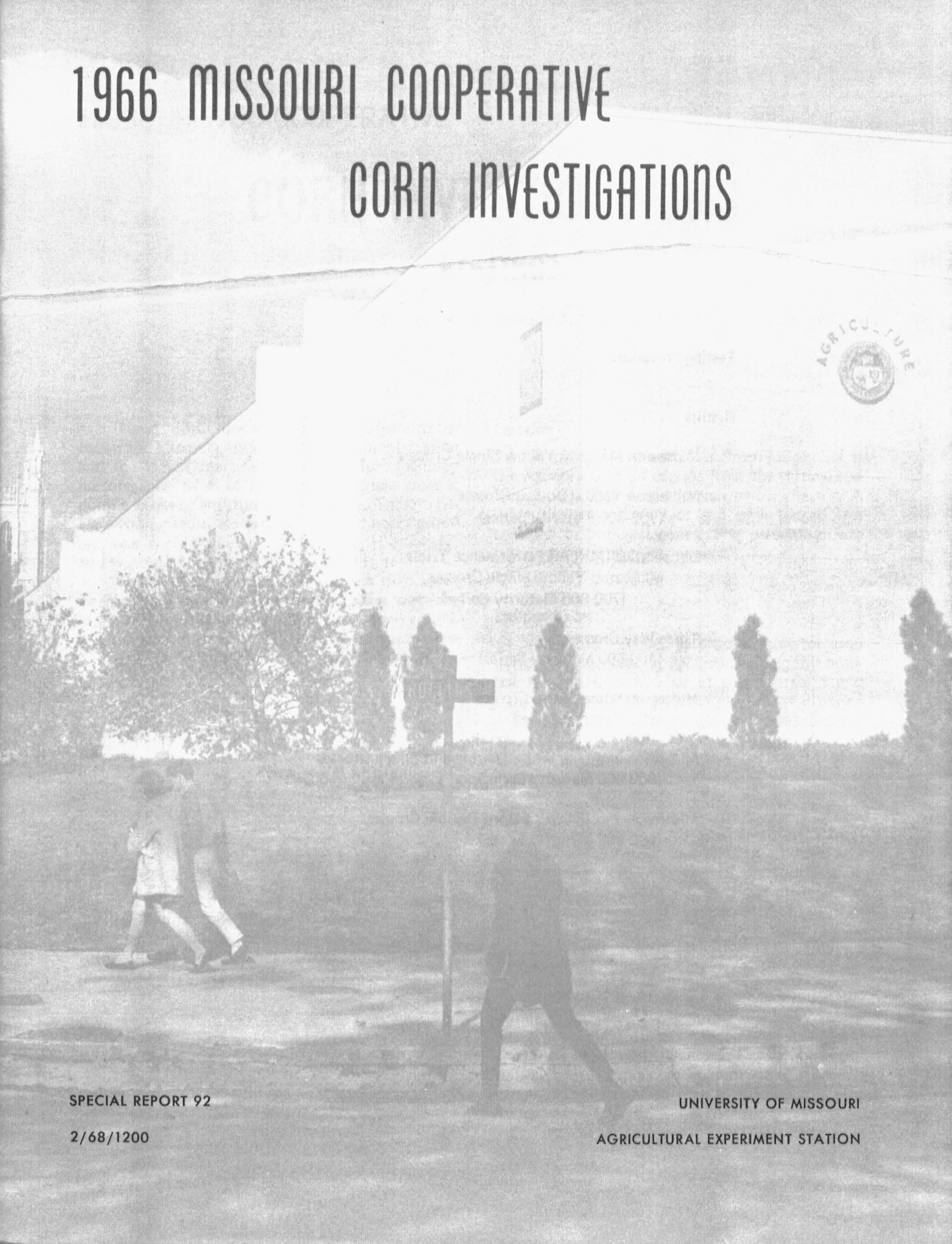


1966 MISSOURI COOPERATIVE CORN INVESTIGATIONS



SPECIAL REPORT 92
2/68/1200

UNIVERSITY OF MISSOURI
AGRICULTURAL EXPERIMENT STATION

CONTENTS

Testing Procedure	3
Results	4
Midseason Maturity Yellow Single Crosses	4
Midseason Yellow Double Crosses (700-800 Maturity Series)	13
Cooperative Uniform Performance Trials Midseason Yellow Single Crosses (700-800 Maturity Series)	21
Three-Way Crosses (400-600 Maturity Series)	26
Midseason White Single Crosses (800 Maturity Series)	27
Midseason and Late White Double and Single Crosses (800-900 Maturity Series)	34
Midseason and Late Pipe Corn Double Crosses (800-900 Maturity Series)	38

MISSOURI 1966 COOPERATIVE

CORN INVESTIGATIONS

by

M. S. Zuber, N. G. Weir and P. J. Loesch, Jr.*

The 1966 Cooperative Corn Investigations between the Missouri Agricultural Experiment Station and the U.S. Department of Agriculture included performance trials of experimental single crosses, double crosses, and three-way crosses. These trials were conducted at seven locations, two near Columbia, one each at Slater, Golden City, Higginsville, and Washington, Mo., and Cedar Rapids, Ia.

The 1966 growing season was less than ideal. Temperature during the flowering period was very high and moisture was limited over much of the state. The Golden City location was irrigated. The average corn yield for Missouri was 62 bushels per acre.

TESTING PROCEDURE

Plots consisted of 2 rows x 5 hills in a completely randomized block of two or four replications at one or more locations.

Stand:

All tests were planted at the rate of five seeds per hill. Plants were thinned to three per hill. The stand percentage was computed on the basis of the total plants present, divided by the number required for a perfect stand.

*The authors' titles are: Zuber, research agronomist, Crops Research Division, ARS, USDA, and professor, Department of Agronomy, University of Missouri; Weir, research technician, Department of Agronomy, University of Missouri; and Loesch, research geneticist, Crops Research Division, ARS, USDA, and assistant professor, Department of Agronomy and Genetics, University of Missouri.

Lodging:

A plant was classified as "root-lodged" if it leaned more than 30 degrees from the vertical and "stalk-lodged" if it was broken below the ear. A plant that was both root and stalk lodged was counted in both categories. The percentage was based on the total plants present.

Dropped Ears:

The total number of dropped ears for each hybrid was recorded at harvest. Dividing this number by the total number of plants present and multiplying by 100 gave the percent of dropped ears. It was assumed that each plant produced one ear.

Ear Height:

The ear-height grade was determined from averages of the two or four plots of a hybrid at a location. The grade consisted of the approximate number of feet from the base of the plant to the point of attachment of the upper ear.

Moisture:

The grain moisture of each entry was determined at harvest by removing two rows of kernels from each of 10 ears, randomly selected from the first replication. The grain was thoroughly mixed and the moisture content of a 100-gram sample was determined with a Steinlite moisture meter.

RESULTS

MIDSEASON MATURITY YELLOW SINGLE CROSSES

Performance records for 74 of the possible 78 single crosses among 13 inbred lines are given in Tables 1, 2, and 3 from experiments grown near Golden City, Columbia, and Slater, Mo., respectively. The mean performance record for the three locations is given in Table 4. The average performance for the parental inbreds as measured by the performance of their single-cross progenies is given in Table 5. The performance for a group of selected double crosses predicted from the single-cross data for each of the three locations is listed in Tables 6, 7, and 8. The predicted double crosses listed are those having high yield, lowest root and stalk lodging and with low ear placement.

<i>Inbred</i>	<i>Parentage</i>
R214	Pioneer Long Ear
Va44	
B63	
Ky128	Iowa Syn. B
T218	T13 x C17
Oh7K	(Oh41 x 38-11)(Oh7A)
Mo5	N6 x K55 ²
Mo17	C103 x 187-2
H49	(WF9 x L97)(WF9)
B37	Iowa Stiff Stalk Syn.
C121E	(Hy x K577C)(Hy)
Oh7A	(Oh11-6 x Oh07)
Oh7B	(Oh07 x 38-11)(Oh07)

Table 1. 1966 performance record for midseason yellow single crosses of 13 inbreds (800 Maturity Series).
 Tested near Golden City, Missouri. Planted May 4, 1966. Harvested October 18, 1966 (Exp. 13).

HYBRID	ACRE	MOISTURE	STAND	LODGED	PLANTS	DROPPED	EAR
	YIELD	IN GRAIN		ROOT	STALK	EARS	
	BU.	%	%	%	%	%	GRADE
CI21E X OH7B	149.5	16.4	84	0.0	15.0	0.0	4.1
M017 X H49	140.8	16.1	83	0.0	3.0	0.6	3.5
B63 X T218	140.6	17.0	77	0.0	9.8	0.0	4.4
H49 X CI21E	134.2	17.5	79	7.6	5.1	1.9	3.9
R214 X B37	133.6	20.4	72	0.0	5.6	1.4	3.8
VA44 X CI21E	130.2	18.5	79	1.9	6.4	0.6	3.3
T218 X CI21E	130.1	18.2	79	0.0	10.8	0.6	4.1
B37 X CI21E	129.8	18.8	76	0.0	4.0	0.7	3.8
R214 X M017	129.7	16.8	70	0.0	7.1	2.9	3.9
T218 X OH7A	129.0	16.1	72	4.2	31.5	0.7	4.3
MO64(WF9TmsXH49)(Mo6XOH29)	127.1	18.1	84	0.0	9.6	0.6	3.6
M05 X CI21E	126.9	24.2	76	0.0	4.6	0.0	3.4
CI21E X OH7A	126.9	23.7	81	11.7	13.0	0.0	4.3
T218 X M017	126.4	15.5	79	0.0	6.3	2.5	3.5
B63 X OH7B	125.9	17.2	79	0.0	22.3	0.0	4.1
B63 X CI21E	125.5	19.7	68	2.2	17.6	0.7	4.3
R214 X H49	125.2	16.7	56	6.3	7.2	3.6	4.1
KY128 X OH7B	125.2	16.1	74	0.0	10.2	0.0	4.0
B63 X M017	123.7	16.4	77	0.0	11.7	0.6	3.8
T218 X H49	123.7	16.5	75	5.4	4.7	4.0	3.9
B63 X B37	122.5	17.9	81	0.0	11.2	0.0	3.6
M05 X OH7B	121.9	17.9	75	0.0	6.7	0.0	3.5
M017 X OH7A	121.7	16.1	76	3.9	31.6	1.3	3.8
KY128 X B37	121.4	16.9	76	0.0	5.3	0.0	3.4
H49 X OH7B	119.2	16.3	75	0.0	4.7	0.7	3.5
KY128 X T218	119.1	15.1	71	2.8	15.6	0.0	3.9
R214 X OH7B	118.9	15.9	65	2.3	11.6	0.8	4.0
T218 X B37	117.3	16.8	69	2.2	7.2	0.0	3.8
R214 X CI21E	116.6	20.8	67	0.0	14.2	0.0	4.1
R214 X KY128	116.5	18.6	68	8.9	14.8	0.0	4.4
B37 X OH7B	116.5	15.8	71	0.0	13.5	0.0	3.4
B63 X OH7A	115.8	19.7	72	0.0	15.4	0.0	4.0
T218 X OH7B	115.4	16.2	77	0.0	16.9	0.0	4.3
R214 X B63	111.6	18.8	55	0.0	27.5	0.9	4.5
B37 X OH7A	111.3	16.4	92	0.0	9.8	0.0	3.4
R214 X T218	110.5	16.9	57	0.0	15.9	3.5	4.1
VA44 X H49	110.4	20.5	74	2.7	6.8	1.4	3.3
MO63(WF9XB41)(MO17XC103)	109.5	15.6	75	0.0	7.3	2.7	3.6
OH7K X H49	109.3	21.8	82	0.0	7.4	0.0	3.5
M017 X CI21E	108.6	19.9	58	0.0	1.7	0.0	3.8
VA44 X B63	107.9	19.3	72	9.1	18.2	0.7	3.6
R214 X OH7A	107.3	17.6	56	2.7	20.7	0.0	4.3
M05 X H49	107.1	20.9	62	0.0	0.0	0.0	3.5
B63 X KY128	105.5	18.8	65	0.0	13.2	0.0	4.0
R214 X OH7K	104.1	17.6	66	4.6	26.0	0.8	3.5
H49 X OH7A	103.8	18.6	53	0.0	1.9	0.0	4.0
KY128 X M05	103.7	20.0	69	0.0	8.8	2.2	3.3
B63 X M05	103.4	21.0	73	0.0	5.5	0.0	3.6
M05 X B37	103.3	19.0	75	0.0	2.7	0.0	3.0
OH7K X M017	103.2	18.6	84	0.0	28.0	0.0	3.3
R214 X M05	102.8	19.7	69	0.0	8.0	0.0	3.5
H49 X B37	102.6	19.0	82	0.0	1.8	0.6	3.4
T218 X OH7K	101.7	16.1	87	9.2	43.4	0.6	3.5
B63 X OH7K	101.6	20.0	74	0.0	10.2	0.0	3.6
KY128 X CI21E	101.2	19.4	52	0.0	1.0	0.0	3.8
T218 X M05	100.5	20.0	62	0.0	4.9	0.8	3.6
VA44 X OH7B	99.8	15.8	54	0.0	9.3	0.0	3.3
R214 X VA44	99.3	19.5	55	0.0	10.0	0.0	3.4
KY128 X OH7K	98.8	17.3	69	0.0	17.4	0.0	3.3
VA44 X T218	98.6	17.2	72	0.0	8.4	1.4	3.5
VA44 X B37	98.6	18.1	77	6.5	5.8	0.0	2.9
M05 X M017	96.5	17.5	63	0.0	8.7	0.0	3.0
OH7K X OH7B	95.4	18.1	71	6.3	35.9	0.0	3.5
KY128 X M017	94.4	15.5	74	0.0	35.4	0.0	3.6
VA44 X OH7A	93.5	22.0	70	8.6	18.6	0.0	3.1
M017 X OH7B	93.4	14.6	52	0.0	8.7	0.0	3.4
M017 X B37	92.0	17.6	73	2.1	8.9	0.7	3.3
KY128 X OH7A	89.8	17.7	49	0.0	8.2	0.0	3.9
VA44 X M05	87.4	21.0	73	0.0	14.4	0.0	2.6
OH7K X B37	87.1	18.8	81	2.5	8.1	0.0	3.0
VA44 X KY128	85.4	17.0	74	0.0	4.1	0.0	3.0
OH7K X M05	85.0	22.2	57	0.0	14.2	0.0	3.1
OH7A X OH7B	78.4	18.1	60	3.4	16.8	0.0	3.9
VA44 X OH7K	72.0	19.0	86	0.0	7.0	0.0	2.6
VA44 X M017	69.6	16.1	54	2.8	12.0	0.0	2.9
OH7K X OH7A	69.1	20.7	70	2.1	15.0	0.7	3.0
MEAN	110.0	18.2	71	1.6	12.0	0.5	3.6

Differences in yield between any two hybrids of less than 17.1 bushels are not considered significant.

Table 2. 1966 performance record for midseason yellow single crosses of 13 inbreds (800 Maturity Series).
 Tested at Bradford Farm near Columbia, Missouri. Planted May 25, 1966. Harvested November 15,
 1966 (Exp. 14).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
T218 X CI21E	124.6	16.8	99	0.0	20.2	3.4	3.8
R214 X MO17	123.8	19.7	95	6.1	10.5	1.8	3.8
R214 X KY128	123.7	19.2	84	0.0	25.7	1.0	4.0
R214 X CI21E	122.9	21.3	100	0.0	35.0	1.7	4.1
B37 X CI21E	119.5	20.1	97	0.0	6.9	0.0	3.8
KY128 X CI21E	119.2	17.7	95	0.0	13.2	0.9	3.5
VA44 X CI21E	118.9	20.6	93	1.8	3.6	1.8	3.1
R214 X OH7A	118.8	16.4	89	8.4	33.6	1.9	3.8
B63 X MO17	117.5	15.2	97	0.9	19.0	2.6	3.1
R214 X H49	117.2	16.8	93	10.7	18.8	10.7	4.4
R214 X B37	116.3	22.4	87	2.9	6.7	0.0	3.4
H49 X CI21E	116.2	17.9	100	0.0	12.5	4.2	3.5
CI21E X OH7B	115.8	16.4	98	0.0	18.6	0.0	3.6
B63 X OH7A	114.9	16.9	98	6.8	57.3	2.6	3.9
R214 X OH7B	114.6	15.4	83	0.0	21.2	1.0	3.9
B63 X KY128	113.5	16.4	94	2.7	45.1	1.8	3.8
MO64 (WF9TmsXH49)(Mo6XOh29)	113.3	16.7	99	5.0	7.6	5.9	3.5
KY128 X MO5	113.2	16.9	96	0.0	11.3	0.0	3.0
T218 X H49	112.6	15.7	89	0.0	7.5	8.4	3.6
B63 X B37	112.3	16.6	99	0.0	29.4	0.0	3.6
B63 X MO5	111.8	17.0	89	1.9	15.0	0.9	3.3
MO 63(WF9XB41)(MO17XC103)	111.4	17.7	98	6.8	10.3	0.9	3.4
MO17 X H49	111.4	15.9	98	11.9	5.1	5.9	3.1
KY128 X T218	110.8	16.0	89	0.0	3.7	0.9	3.6
MO17 X CI21E	110.7	19.8	88	0.0	4.8	3.8	3.3
B63 X CI21E	110.5	16.9	93	0.0	55.4	0.9	3.8
MO17 X OH7A	109.6	17.2	98	1.7	15.4	0.0	3.0
MO5 X MO17	109.3	17.7	95	0.0	4.4	0.0	3.0
R214 X MO5	108.9	17.7	88	0.0	15.2	2.9	3.5
MO5 X CI21E	108.4	23.8	98	2.5	17.8	0.8	3.1
MO5 X OH7B	108.3	16.3	98	0.0	19.5	1.7	3.1
T218 X MO17	107.9	16.2	98	0.0	0.8	3.4	3.4
CI21E X OH7A	107.9	20.9	93	0.0	31.3	0.0	3.5
T218 X OH7A	107.8	16.7	97	0.9	18.1	0.9	3.8
VA44 X B63	107.2	17.4	95	10.5	18.4	1.8	3.3
KY128 X OH7B	107.1	16.5	93	4.5	2.7	0.0	3.4
T218 X MO5	107.1	16.8	96	0.0	4.3	0.0	3.5
H49 X OH7A	106.9	20.2	89	6.5	9.3	3.7	3.4
T218 X B37	105.9	16.9	88	0.0	6.6	0.9	3.4
R214 X VA44	105.1	21.3	87	19.2	10.6	1.9	3.3
MO5 X B37	104.2	18.8	98	0.0	0.9	0.0	3.1
R214 X T218	104.0	15.7	89	0.0	21.5	1.9	3.9
KY128 X B37	103.8	16.1	93	0.0	3.6	0.0	3.4
H49 X B37	103.6	18.8	96	0.9	5.2	3.5	3.3
VA44 X OH7B	103.4	16.8	92	11.8	14.5	0.0	3.0
VA44 X B37	103.1	21.4	92	1.8	4.5	0.9	2.9
VA44 X H49	102.8	18.6	87	11.5	3.8	1.0	3.1
B63 X T218	102.3	14.8	96	0.0	28.7	0.9	4.0
T218 X OH7B	102.0	15.1	95	0.0	22.8	0.0	3.9
OH7K X MO17	101.9	20.0	100	0.0	23.3	0.8	3.3
B37 X OH7B	101.9	16.2	96	0.0	15.7	0.0	3.5
MO17 X B37	101.5	19.0	87	2.9	4.8	2.9	3.3
R214 X B63	101.3	19.5	98	0.0	65.0	1.7	4.5
OH7K X H49	101.0	20.5	99	2.5	20.2	0.0	3.0
B63 X OH7K	100.9	15.8	96	0.0	54.8	2.6	3.6
KY128 X MO17	100.5	15.5	99	0.8	7.6	0.0	3.5
H49 X OH7B	99.9	16.2	93	0.0	9.0	0.0	3.1
VA44 X OH7A	99.6	21.9	105	11.9	11.1	4.0	3.0
VA44 X MO5	99.4	21.5	93	0.0	6.3	0.0	2.5
R214 X OH7K	97.4	16.4	82	0.0	35.7	0.0	3.5
MO17 X OH7B	97.4	14.9	86	0.0	15.5	0.0	3.1
VA44 X T218	96.3	17.9	89	0.0	6.5	1.9	3.3
B37 X OH7A	96.3	17.9	98	2.6	12.0	0.0	3.1
B63 X OH7B	95.5	15.6	88	3.8	55.2	1.9	3.9
VA44 X KY128	94.2	19.5	98	2.5	1.7	2.5	2.9
KY128 X OH7K	93.9	18.1	100	0.0	30.0	0.0	3.3
T218 X OH7K	93.4	16.6	85	0.0	15.7	0.0	3.1
KY128 X OH7A	93.0	16.6	76	6.6	14.3	0.0	3.4
OH7K X OH7B	91.3	16.6	98	0.0	23.1	0.0	3.0
OH7K X B37	90.0	18.0	98	0.0	7.6	0.0	2.9
MO5 X H49	88.8	19.7	66	0.0	2.5	0.0	2.9
VA44 X MO17	88.1	17.0	93	16.2	1.8	1.8	2.6
OH7K X MO5	88.0	21.4	88	0.0	19.8	0.0	2.9
VA44 X OH7K	86.7	22.1	89	0.0	6.5	0.0	2.6
OH7A X OH7B	69.7	16.4	86	8.7	23.3	0.0	3.6
OH7K X OH7A	61.7	21.6	94	1.8	22.1	0.0	3.0
MEAN	105.0	17.9	93	2.6	17.0	1.4	3.4

Differences in yield between any two hybrids of less than 14.6 bushels are not considered significant.

Table 3. 1966 performance record for midseason yellow single crosses of 13 inbreds (800 Maturity Series).
 Tested near Slater, Missouri (Exp. 15). (Machine harvested.)

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
KY128 X T218	93.4	15.9	100	8.1	15.6	4.4	5.3
B63 X M05	89.4	16.4	98	19.2	15.4	5.1	4.9
R214 X B37	88.0	16.6	93	29.1	21.6	2.7	4.5
KY128 X OH7B	78.3	15.4	79	23.0	46.0	4.8	5.0
M05 X OH7B	78.0	16.6	78	32.8	12.0	1.6	4.6
VA44 X CI21E	76.8	18.3	92	16.3	21.1	4.1	4.4
R214 X OH7B	76.7	14.8	97	18.7	31.6	5.8	5.0
M05 X M017	76.7	18.0	82	9.9	30.5	2.3	4.6
B63 X OH7B	73.2	15.5	94	11.3	59.6	7.9	5.1
T218 X B37	73.0	15.4	87	15.8	23.7	2.9	4.7
CI21E X OH7B	72.6	16.1	83	11.3	44.4	2.3	5.3
B37 X OH7B	72.4	14.5	89	23.8	51.0	1.4	4.8
T218 X OH7B	71.1	15.8	102	11.0	34.4	6.1	5.1
B63 X M017	70.8	14.5	89	9.1	26.6	7.7	4.9
H49 X OH7B	70.8	15.2	98	14.7	17.9	4.5	4.9
CI21E X OH7A	70.6	16.6	95	7.2	61.8	4.6	4.8
VA44 X OH7B	70.4	16.6	94	15.3	42.0	2.7	4.9
M05 X H49	69.2	17.0	65	8.7	3.8	0.0	4.4
M017 X OH7B	68.6	14.9	75	6.7	38.3	9.2	4.4
KY128 X B37	68.2	14.9	94	5.3	16.7	4.7	4.5
H49 X B37	67.2	15.2	99	8.2	15.8	7.6	4.9
M05 X CI21E	66.7	22.9	92	38.8	17.7	1.4	4.8
T218 X M017	66.3	14.9	94	1.3	22.7	14.7	4.9
VA44 X B37	65.8	17.0	96	16.9	39.6	1.9	4.0
B37 X CI21E	65.4	16.6	95	6.6	15.1	2.0	4.9
T218 X CI21E	64.8	15.9	99	11.4	20.9	8.2	5.0
M017 X CI21E	63.7	15.9	65	3.8	29.8	4.8	5.1
R214 X H49	63.1	16.4	76	25.6	23.1	9.1	5.0
T218 X OH7K	63.0	16.4	89	9.9	44.4	2.8	4.5
R214 X M017	62.8	14.9	97	13.5	33.5	7.1	4.6
M05 X B37	62.7	16.6	79	24.4	12.6	3.1	4.0
T218 X M05	62.6	18.1	68	2.8	12.8	8.3	4.8
R214 X CI21E	62.4	16.8	88	19.9	56.0	3.5	4.8
R214 X M05	62.1	21.5	74	9.3	27.1	5.1	5.0
M017 X H49	61.3	15.1	93	26.2	24.2	9.4	4.5
OH7K X M017	59.9	15.4	91	3.4	65.5	4.1	4.1
VA44 X H49	59.8	16.6	96	9.7	28.6	4.5	4.4
B63 X B37	59.6	14.2	99	6.9	33.3	3.8	4.8
R214 X B63	58.5	16.6	83	16.7	51.5	8.3	5.3
B63 X T218	58.5	14.8	94	19.9	27.2	2.6	5.3
OH7K X B37	58.4	15.5	95	20.4	35.5	3.3	4.0
M017 X B37	58.4	15.7	72	8.7	30.4	7.0	4.1
KY128 X CI21E	57.1	16.5	76	20.7	24.8	4.1	5.0
B37 X OH7A	56.9	14.5	84	25.4	44.8	1.5	4.6
H49 X CI21E	56.7	15.9	93	3.4	27.5	7.4	4.9
MO 63 (WF9XB41)(M017XC103)	56.2	15.2	91	11.0	28.3	10.3	4.5
M017 X OH7A	55.9	15.2	93	14.8	59.1	3.4	4.3
B63 X OH7K	55.5	15.4	83	16.5	56.4	4.5	4.6
B63 X CI21E	55.4	16.8	86	14.6	50.4	8.0	4.8
OH7K X H49	55.3	17.1	95	22.4	40.8	2.6	4.6
OH7K X M05	55.2	18.7	79	15.0	38.6	5.5	4.4
H49 X OH7A	54.4	15.9	58	29.3	19.6	8.7	4.6
R214 X KY128	53.9	14.9	76	7.4	60.7	3.3	4.9
VA44 X KY128	53.9	16.3	84	14.9	26.1	4.5	4.1
OH7K X OH7B	53.6	15.6	86	9.5	59.9	2.9	4.3
B63 X KY128	53.5	17.2	87	18.7	48.9	4.3	4.6
VA44 X T218	53.4	15.5	78	7.2	21.6	14.4	4.6
VA44 X OH7K	52.6	16.6	89	14.1	36.6	2.1	3.9
T218 X H49	52.4	15.7	96	15.0	29.4	9.2	5.0
T218 X OH7A	51.8	15.7	97	32.3	46.5	7.1	5.0
VA44 X B63	51.5	16.8	97	9.0	27.7	11.0	4.2
VA44 X M05	50.9	18.5	88	18.4	33.3	5.0	3.8
R214 X T218	50.0	15.9	69	10.9	24.5	12.7	4.5
MO64 (WF9TmsXH49)(Mo6XOH29)	48.4	15.2	75	17.5	30.8	8.3	4.8
KY128 X OH7A	46.7	17.4	58	5.4	57.6	4.3	4.5
R214 X VA44	44.7	18.3	84	11.1	68.9	3.7	4.6
VA44 X OH7A	42.3	16.5	82	8.4	71.8	2.3	4.5
B63 X OH7A	42.3	15.6	71	18.6	56.6	6.2	5.2
OH7A X OH7B	41.0	15.9	83	18.0	60.9	3.8	4.5
KY128 X M05	41.0	15.2	88	11.3	28.4	19.9	4.9
VA44 X M017	40.7	16.7	72	13.9	46.1	6.1	3.5
R214 X OH7K	39.6	15.8	86	8.8	76.6	3.6	4.4
KY128 X M017	38.6	15.1	93	14.9	56.8	4.1	4.3
KY128 X OH7K	37.7	16.2	89	16.2	74.6	2.8	4.5
R214 X OH7A	34.6	15.1	83	15.2	78.0	6.8	4.9
OH7K X OH7A	27.4	18.9	53	15.3	80.0	4.7	4.3
MEAN	59.8	16.2	86	14.6	37.8	5.5	4.6

Differences in yield between any two hybrids of less than 20.6 bushels are not considered significant.

Table 4. Summary of performance records for midseason yellow single crosses of 13 inbreds (800 Maturity Series). Tested near Golden City, Columbia and Slater, Missouri (Expts. 13, 14 and 15).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
R214 X VA44	83.0	19.7	75	10.1	29.8	1.9	3.8
R214 X B63	90.5	18.3	79	5.6	48.0	3.6	4.8
R214 X KY128	98.0	17.6	76	5.4	33.7	1.4	4.4
R214 X T218	88.2	16.2	72	3.6	20.6	6.0	4.2
R214 X OH7K	80.4	16.6	78	4.5	46.1	1.5	3.8
R214 X M05	91.3	19.6	77	3.1	16.8	2.7	4.0
R214 X M017	105.4	17.1	87	6.5	17.0	3.9	4.1
R214 X H49	101.8	16.6	75	14.2	16.4	7.8	4.5
R214 X B37	112.6	19.8	84	10.7	11.3	1.4	3.9
R214 X CI21E	100.6	19.6	85	6.6	35.1	1.7	4.3
R214 X OH7A	86.9	16.4	76	8.8	44.1	2.9	4.3
R214 X OH7B	103.4	15.4	82	7.0	21.5	2.5	4.3
VA44 X B63	88.9	17.8	88	9.5	21.4	4.5	3.7
VA44 X KY128	77.8	17.6	85	5.8	10.6	2.3	3.3
VA44 X T218	82.8	16.9	80	2.4	12.2	5.9	3.8
VA44 X OH7K	70.4	19.2	88	4.7	16.7	0.7	3.0
VA44 X M05	79.2	20.3	85	6.1	18.0	1.7	3.0
VA44 X M017	66.1	16.6	73	11.0	20.0	2.6	3.0
VA44 X H49	91.0	18.6	86	8.0	13.1	2.3	3.6
VA44 X B37	89.2	18.8	88	8.4	16.6	0.9	3.3
VA44 X CI21E	108.6	19.1	88	6.7	10.4	2.2	3.6
VA44 X OH7A	78.5	20.1	86	9.6	33.8	2.1	3.5
VA44 X OH7B	91.2	16.4	80	9.0	21.9	0.9	3.7
B63 X KY128	90.8	17.5	82	7.1	35.7	2.0	4.1
B63 X T218	100.5	15.5	89	6.6	21.9	1.2	4.6
B63 X OH7K	86.0	17.1	84	5.5	40.5	2.4	3.9
B63 X M05	101.5	18.1	87	7.0	12.0	2.0	3.9
B63 X M017	104.0	15.4	88	3.3	19.1	3.6	3.9
CI21E X OH7B	112.6	16.3	88	3.8	26.0	0.8	4.3
B63 X B37	98.1	16.2	93	2.3	24.6	1.3	4.0
B63 X CI21E	97.1	17.8	82	5.6	41.1	3.2	4.3
B63 X OH7A	91.0	17.4	80	8.5	43.1	2.9	4.4
B63 X OH7B	98.2	16.1	87	5.0	45.7	3.3	4.4
KY128 X T218	107.8	15.7	87	3.6	11.6	1.8	4.3
KY128 X OH7K	76.8	17.2	86	5.4	40.7	0.9	3.7
OH7A X OH7B	63.0	16.8	76	10.0	33.7	1.3	4.0
KY128 X M017	77.8	15.4	89	5.2	33.3	1.4	3.8
MO 63(WF9XB41)(M017XC103)	92.4	16.2	88	5.9	15.3	4.6	3.8
KY128 X B37	97.8	16.0	88	1.8	8.5	1.6	3.8
KY128 X CI21E	92.5	17.9	74	6.9	13.0	1.7	4.1
KY128 X OH7A	76.5	17.2	61	4.0	26.7	1.4	3.9
KY128 X OH7B	103.5	16.0	82	9.2	19.6	1.6	4.1
T218 X OH7K	86.0	16.4	87	6.4	34.5	1.1	3.7
T218 X M05	90.1	18.3	75	0.9	7.3	3.0	4.0
T218 X M017	100.2	15.5	90	0.4	9.9	6.9	3.9
T218 X H49	96.2	16.0	87	6.8	13.9	7.2	4.2
T218 X B37	98.7	16.4	81	6.0	12.5	1.3	4.0
T218 X CI21E	106.5	17.0	92	3.8	17.3	4.1	4.3
T218 X OH7A	96.2	16.2	89	12.5	32.0	2.9	4.4
T218 X OH7B	96.2	15.7	91	3.7	24.7	2.0	4.4
OH7K X M05	76.1	20.8	75	5.0	24.2	1.8	3.5
OH7K X M017	88.3	18.0	92	1.1	38.9	1.6	3.6
OH7K X H49	88.5	19.8	92	8.3	22.8	0.9	3.7
OH7K X B37	78.5	17.4	91	7.6	17.1	1.1	3.3
MO64 (WF9TmsXH49)(Mo6XOH29)	96.3	16.7	86	7.5	16.0	4.9	4.0
OH7K X OH7A	52.7	20.4	72	6.4	39.0	1.8	3.4
OH7K X OH7B	80.1	16.8	85	5.3	39.6	1.0	3.6
M05 X M017	94.2	17.7	80	3.3	14.5	0.8	3.5
M05 X H49	88.4	19.2	64	2.9	2.1	0.0	3.6
M05 X B37	90.1	18.1	84	8.1	5.4	1.0	3.4
M05 X CI21E	100.7	23.6	89	13.8	13.4	0.7	3.8
KY128 X M05	86.0	17.4	84	3.8	16.2	7.4	3.7
M05 X OH7B	102.7	16.9	84	10.9	12.7	1.1	3.7
M017 X H49	104.5	15.7	91	12.7	10.8	5.3	3.7
M017 X B37	84.0	17.4	77	4.6	14.7	3.5	3.6
M017 X CI21E	94.3	18.5	70	1.3	12.1	2.9	4.1
M017 X OH7A	95.7	16.2	89	6.8	35.4	1.6	3.7
M017 X OH7B	86.5	14.8	71	2.2	20.8	3.1	3.6
H49 X B37	91.1	17.7	92	3.0	7.6	3.9	3.9
H49 X CI21E	102.4	17.1	91	3.7	15.0	4.5	4.1
H49 X OH7A	88.4	18.2	67	11.9	10.3	4.1	4.0
H49 X OH7B	96.6	15.9	89	4.9	10.5	1.7	3.8
B37 X CI21E	104.9	18.5	89	2.2	8.7	0.9	4.2
B37 X OH7A	88.2	16.3	91	9.3	22.2	0.5	3.7
B37 X OH7B	96.9	15.5	85	7.9	26.7	0.5	3.9
CI21E X OH7A	101.8	20.4	90	6.3	35.4	1.5	4.2
MEAN	91.6	17.5	83	6.3	22.3	2.5	3.9

Table 5. 1966 summary of average performance for parental inbred lines obtained from all possible single crosses among them (800 Maturity Series) Expts. 13, 14 and 15.

Inbred Parent	Location			Mean
	Golden City Exp. 13	Bradford Farm Columbia Exp. 14	Slater Exp. 15	
	<u>Acre Yield Bushels</u>			
R214	114.7	112.8	58.0	95.2
VA44	96.1	100.4	55.2	83.9
B63	116.7	108.0	60.7	95.1
Hy128	105.5	106.6	56.6	89.6
T218	117.7	106.2	63.4	95.8
Oh7K	93.4	91.5	50.7	78.5
Mo5	103.5	104.3	65.0	90.9
Mo17	108.3	106.6	60.3	91.7
H49	117.6	106.0	61.0	94.9
B37	111.3	104.9	66.3	94.2
CI21E	125.4	115.9	64.7	102.0
Oh7A	104.2	98.7	47.6	83.5
Oh7B	113.3	100.6	68.9	94.3
	<u>% Stalk Lodging</u>			
R214	14.1	25.0	38.4	25.8
Va44	10.1	7.4	38.6	18.7
B63	14.8	40.3	38.0	31.0
Ky128	12.2	14.4	41.5	22.7
T218	14.6	13.0	27.0	18.2
Oh7K	19.3	23.5	55.4	32.7
Mo5	7.1	10.6	19.1	12.3
Mo17	13.6	9.4	38.6	20.5
H49	4.3	9.4	23.1	12.3
B37	7.0	8.6	28.3	14.6
CI21E	8.5	19.9	30.3	19.6
Oh7A	16.6	22.5	57.9	32.3
Oh7B	14.3	20.1	41.5	25.3
	<u>Ear Height Grade</u>			
R214	4.0	3.8	4.8	4.2
Va44	3.1	3.0	4.2	3.4
B63	4.0	3.7	4.9	4.2
Ky128	3.7	3.4	4.7	3.9
T218	3.9	3.6	4.9	4.1
Oh7K	3.3	3.1	4.3	3.6
Mo5	3.3	3.1	4.6	3.7
Mo17	3.5	3.2	4.4	3.7
H49	3.7	3.3	4.7	3.9
B37	3.4	3.3	4.5	3.7
CI21E	3.9	3.6	4.9	4.1
Oh7A	3.8	3.4	4.7	4.0
Oh7B	3.8	3.4	4.8	4.0

Table 6. Predicted performances for 45 selected yellow double crosses based on high yield and low lodging. Predictions made from single cross data presented in Table 1. Experiment 13 grown near Golden City, Missouri in 1966.

Pedigree	Yield	% Lodging	Ear Height
(T218 x H49)(Mo17 x CI21E)	132.9	6.3	3.7
(B63 x H49)(T218 x Mo17)	132.2	7.3	3.9
(R214 x CI21E)(H49 x B37)	130.7	5.5	3.9
(R214 x H49)(Mo17 x CI21E)	130.3	7.3	3.8
(Mo17 x CI21E)(H49 x OH7B)	129.5	7.9	3.7
(Mo17 x OH7B)(H49 x CI21E)	129.5	6.1	3.7
(Mo5 x CI21E)(H49 x OH7B)	128.2	6.7	3.7
(R214 x H49)(Mo17 x OH7B)	127.1	6.6	3.8
(R214 x T218)(Mo17 x B37)	126.7	6.5	3.7
(R214 x H49)(Mo17 x B37)	126.7	4.4	3.6
(R214 x T218)(Mo17 x H49)	126.2	6.2	3.8
(R214 x H49)(T218 x Mo17)	126.2	7.7	3.8
(T218 x CI21E)(H49 x B37)	126.2	5.2	3.8
(Mo5 x CI21E)(B37 x OH7B)	126.1	7.1	3.6
(T218 x Mo17)(H49 x CI21E)	125.8	5.0	3.8
(Mo5 x OH7B)(H49 x CI21E)	125.7	6.1	3.6
(Mo5 x H49)(CI21E x OH7B)	125.5	5.3	3.6
(R214 x CI21E)(Mo17 x B37)	125.4	4.1	3.8
(T218 x H49)(Mo17 x OH7B)	125.4	7.7	3.7
(H49 x CI21E)(B37 x OH7B)	125.3	6.4	3.7
(B63 x CI21E)(T218 x Mo5)	125.2	7.7	3.9
(R214 x T218)(H49 x B37)	124.9	6.2	3.9
(H49 x B37)(CI21E x OH7B)	124.9	6.8	3.6
(Mo5 x H49)(Mo17 x CI21E)	124.6	5.3	3.4
(R214 x CI21E)(Mo17 x H49)	124.4	5.3	3.9
(Mo17 x CI21E)(H49 x B37)	124.2	5.2	3.6
(Mo5 x B37)(CI21E x OH7B)	123.8	7.2	3.5
(R214 x OH7B)(H49 x B37)	123.6	7.7	3.7
(Va44 x T218)(H49 x CI21E)	123.6	7.2	3.6
(R214 x CI21E)(Mo5 x B37)	123.3	5.5	3.6
(R214 x CI21E)(Va44 x B37)	123.2	6.5	3.6
(T218 x CI21E)(Mo17 x H49)	123.2	4.4	3.8
(R214 x Mo17)(H49 x B37)	122.9	6.2	3.7
(R214 x Mo17)(H49 x CI21E)	122.8	6.5	3.9
Va44 x Mo17)(H49 x CI21E)	122.5	4.5	3.5
(B63 x H49)(Mo17 x B37)	122.4	6.9	3.6
(R214 x CI21E)(Mo5 x H49)	122.3	6.2	3.7
(B63 x H49)(T218 x B37)	122.3	6.9	3.8
(R214 x CI21E)(Va44 x H49)	122.2	7.2	3.7
(T218 x Mo5)(H49 x CI21E)	121.9	5.0	3.7
(T218 x H49)(Mo17 x B37)	121.8	4.6	3.5
(R214 x H49)(B37 x CI21E)	121.7	6.7	3.8
(Va44 x H49)(T218 x CI21E)	121.7	6.1	3.6
(T218 x B37)(H49 x CI21E)	121.5	5.3	3.8
(T218 x CI21E)(Mo5 x H49)	121.3	4.8	3.8

Table 7. Predicted performances for 45 selected yellow crosses based on high yield and low lodging. Predictions made from single-cross data presented in Table 2. Experiment 14 grown Bradford Farm near Columbia, Missouri in 1966.

Pedigree	Yield	% Lodging	Ear Height
(R214 x CI21E)(Mo17 x B37)	117.6	7.2	3.6
(R214 x CI21E)(Va44 x B37)	114.9	6.9	3.4
(R214 x CI21E)(Va44 x Mo17)	114.6	7.4	3.4
(Ky128 x B37)(Mo5 x CI21E)	114.0	8.1	3.3
(R214 x H49)(Mo17 x B37)	113.8	6.9	3.4
(Ky128 x B37)(T218 x CI21E)	113.8	7.6	3.6
(T218 x B37)(Mo5 x CI21E)	113.8	8.1	3.5
(R214 x T218)(Mo17 x B37)	113.5	6.1	3.5
(T218 x CI21E)(H49 x B37)	113.5	8.4	3.6
(R214 x Mo5)(Mo17 x B37)	113.4	5.6	3.3
(T218 x B37)(Mo17 x CI21E)	113.4	8.2	3.6
(Ky128 x Mo17)(Mo5 x CI21E)	113.1	8.4	3.2
(T218 x Mo17)(Mo5 x CI21E)	112.9	8.4	3.4
(Va44 x T218)(Ky128 x CI21E)	112.1	7.3	3.3
(Ky128 x Mo17)(T218 x CI21E)	112.1	5.6	3.4
(Mo17 x CI21E)(H49 x B37)	112.1	7.3	3.4
(R214 x T218)(Mo5 x Mo17)	111.9	7.7	3.5
(T218 x CI21E)(Mo17 x H49)	111.8	6.4	3.4
(Ky128 x CI21E)(B37 x OH7B)	111.5	7.9	3.5
(Va44 x Ky128)(T218 x CI21E)	111.3	6.7	3.4
(Mo17 x B37)(H49 x CI21E)	111.3	5.5	3.4
(Va44 x Ky128)(B37 x CI21E)	111.2	6.2	3.2
(Va44 x B37)(H49 x CI21E)	111.2	4.9	3.3
(R214 x Ky128)(Mo17 x B37)	111.1	7.1	3.5
(Va44 x H49)(T218 x CI21E)	111.0	7.5	3.4
(T218 x CI21E)(Mo17 x B37)	111.0	4.8	3.5
(Mo5 x CI21E)(Mo17 x B37)	110.9	4.2	3.3
(Va44 x Mo17)(H49 x CI21E)	110.9	4.3	3.1
(R214 x H49)(Va44 x Mo17)	110.8	7.5	3.3
(Va44 x B37)(Mo5 x CI21E)	110.5	4.4	3.1
(Va44 x H49)(B37 x CI21E)	110.4	6.4	3.2
(Va44 x CI21E)(H49 x B37)	110.4	6.9	3.3
(Ky128 x Mo17)(T218 x Mo5)	110.3	5.0	3.2
(Ky128 x B37)(Mo17 x CI21E)	110.2	8.1	3.5
(T218 x Mo17)(Mo5 x H49)	110.1	5.3	3.3
(Va44 x B37)(T218 x CI21E)	110.1	5.9	3.4
(Va44 x T218)(Mo17 x CI21E)	109.9	6.6	3.2
(R214 x Va44)(H49 x B37)	109.8	8.4	3.4
(R214 x B37)(Mo5 x Mo17)	109.6	7.8	3.4
(Va44 x Mo17)(Mo5 x CI21E)	109.6	4.8	3.0
(R214 x T218)(Mo5 x B37)	109.5	8.2	3.4
(R214 x Mo5)(Va44 x Mo17)	109.4	7.9	3.1
(T218 x OH7A)(Mo17 x H49)	109.2	8.2	3.3
(Va44 x B37)(Ky128 x CI21E)	109.1	3.9	3.3
(Va44 x OH7B)(Ky128 x CI21E)	109.0	6.6	3.2

Table 8. Predicted performances for 45 selected yellow double crosses based on high yield and low lodging. Predictions made from single-cross data presented in Table 3. Experiment 15 grown near Slater, Missouri in 1966.

Pedigree	Yield	% Lodging	Ear Height
(Ky128 x Mo5)(T218 x OH7B)	78.1	21.6	4.9
(R214 x Mo5)(B37 x OH7B)	76.3	19.4	4.5
(R214 x H49)(B37 x OH7B)	75.7	21.7	4.8
(R214 x OH7B)(Mo5 x B37)	75.1	22.4	4.7
(R214 x Ky128)(T218 x B37)	74.9	19.6	4.7
(R214 x B63)(Mo5 x B37)	74.8	18.8	4.8
(B63 x OH7B)(T218 x Mo5)	74.2	22.2	5.0
(B63 x OH7B)(Mo5 x CI21E)	73.8	21.6	4.9
(Ky128 x CI21E)(T218 x B37)	72.9	17.1	4.9
(B63 x H49)(Mo5 x Mo17)	72.7	17.5	4.7
(B63 x CI21E)(Mo5 x Mo17)	72.6	22.4	4.9
(B63 x T218)(Mo5 x Mo17)	72.3	19.4	4.9
(Va44 x T218)(Ky128 x CI21E)	72.2	20.9	4.7
(Ky128 x B37)(T218 x CI21E)	72.2	19.8	5.0
(Ky128 x Mo5)(B37 x OH7B)	71.8	21.8	4.5
(R214 x Mo5)(H49 x OH7B)	71.7	17.6	4.6
(Ky128 x Mo5)(T218 x B37)	71.7	14.4	4.6
(Mo5 x H49)(Mo17 x OH7B)	71.7	21.1	4.6
(Mo5 x B37)(H49 x OH7B)	71.7	20.6	4.7
(R214 x H49)(Mo5 x B37)	71.6	11.6	4.7
(Ky128 x Mo17)(T218 x B37)	71.6	21.3	4.7
(R214 x T218)(Mo5 x B37)	71.4	15.8	4.7
(R214 x B63)(Mo5 x Mo17)	71.3	20.1	4.8
(R214 x Mo17)(Mo5 x B37)	71.3	21.9	4.5
(B63 x H49)(Mo5 x B37)	71.3	17.1	4.7
(T218 x Mo5)(B37 x OH7B)	71.2	20.7	4.6
(Va44 x Mo5)(B63 x CI21E)	71.1	20.5	4.6
(B63 x T218)(Mo5 x B37)	71.1	21.3	4.8
(B63 x B37)(T218 x Mo5)	70.9	19.7	4.7
(R214 x Mo5)(H49 x B37)	70.7	15.3	4.5
(B63 x Ky128)(T218 x Mo5)	70.6	21.6	5.1
(R214 x CI21E)(Mo5 x B37)	70.5	14.9	4.8
(B63 x B37)(Mo5 x Mo17)	70.3	21.2	4.5
(B63 x CI21E)(Mo5 x B37)	70.3	20.4	4.8
(Ky128 x H49)(T218 x B37)	70.3	19.4	4.9
(Va44 x Ky128)(T218 x CI21E)	70.2	20.8	4.8
(T218 x Mo5)(CI21E x OH7B)	70.1	21.2	4.9
(Ky128 x Mo5)(T218 x CI21E)	69.9	17.7	5.0
(B63 x CI21E)(T218 x Mo5)	69.8	20.3	5.0
(Mo5 x OH7B)(H49 x CI21E)	69.8	20.9	4.8
(R214 x H49)(Mo5 x OH7B)	69.7	14.6	4.8
(Mo5 x H49)(B37 x OH7B)	69.7	14.6	4.6
(Mo5 x CI21E)(B37 x OH7B)	69.7	21.0	4.7
(Va44 x Mo5)(H49 x OH7B)	69.3	21.6	4.6
(Mo5 x Mo17)(H49 x OH7B)	69.3	19.6	4.5

MIDSEASON YELLOW DOUBLE CROSSES

(700–800 Maturity Series)

Performance records for 45 double-cross and three single-cross hybrids tested at four locations are presented in Tables 9, 10, 11, and 12. Pedigrees as given in Tables 9 through 12 are not intended to indicate the male and female parents. The experiments were conducted at Bradford Farm near Columbia, Golden City, Marshall, and Rollins Field near Columbia, respectively. The mean performance for all four locations is presented in Table 13. The results for midseason yellow doubles (800 maturity) grown at Rollins Field are presented in Table 14. The average performances for periods of years are presented in Tables 15 and 16.

Table 9. 1966 performance record for midseason yellow double crosses (700-800 Maturity Series).
 Tested at Bradford Farm near Columbia, Missouri. Planted May 17, 1966. Harvested
 November 14, 1966 (Exp. 22).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
MOSX-7 T204XGT112*	128.1	15.4	90	2.8	13.9	3.7	4.8
MOSX-10 B37XC121E	122.5	18.9	100	0.0	9.2	2.5	3.4
MO65-3 MO5XH49 CI21EXK148	120.2	17.2	98	2.5	11.0	3.4	3.0
MO65-2 H60XC121E B37XM05	119.5	17.6	100	0.0	9.2	1.7	3.0
PIONEER 3306	118.0	16.5	97	0.9	18.1	0.0	3.3
MO65-6 MO5XH49 H60XC121E	117.8	17.0	98	4.2	10.2	3.4	3.0
MO65-7 H49XC121E MO17XM05	116.2	17.9	93	0.0	7.2	6.3	3.0
MO62-14 H49XB41 MO8XM06	115.9	19.0	97	12.9	9.5	11.2	3.4
MO916 MO6XC121E OH7BXOH29	115.6	17.8	88	0.0	8.6	0.0	3.3
MO881 OH7BXOH29 CI21EXM07	115.4	17.1	89	0.0	15.0	2.8	3.1
MO65-4 MO17XM05 CI21EXCI38B	115.2	16.5	90	0.0	15.7	1.9	2.8
MO62-7 H49XC138B MO5XK148	115.1	18.9	98	0.0	10.2	3.4	3.0
DE KALB 1006	114.1	21.5	98	2.6	13.7	2.6	4.0
MO65-5 MO17XM05 CI21EXK148	113.0	17.8	98	1.7	6.0	4.3	2.8
MO64 (WF9TmsXH49)(MO6XOH29)	110.8	16.3	95	8.8	10.5	1.8	3.0
MO63-3 WF9XW64A MO17XC103	110.2	15.3	100	0.8	0.0	9.2	2.9
MO62-10 WF9XB41 MO6XC121E	109.9	17.2	93	2.7	9.8	3.6	3.1
MO65-8 H60XC121E B37XH49	109.7	16.3	91	0.0	7.3	2.8	3.3
MO65-1 H49XM05 MO17XC121E	109.6	20.5	91	0.0	12.8	0.9	2.9
MO1023 WF9XB41 MO5XC103	109.0	17.3	94	0.0	8.0	4.4	2.8
MO64-18 MO17XC103 MO61004XWF9	108.3	18.3	89	0.0	1.9	3.7	3.0
PIONEER 321	108.2	16.9	99	0.0	14.3	1.7	2.9
MO62-18A WF9XOH7A MO17XC103	107.9	16.9	97	3.4	7.8	8.6	3.0
MO65-10 H49XB37 MO17	107.4	16.3	97	0.0	6.0	3.4	3.0
MO63 WF9XB41 MO17XC103	106.7	13.7	98	1.7	9.3	4.2	3.3
MO63-31 WF9XH49 MO17	105.7	16.6	100	1.7	5.0	1.7	2.9
MO65-11 H49XB37 OH7B	105.4	15.9	94	0.0	4.4	2.7	3.4
MFA 3232	103.8	17.4	83	0.0	9.1	1.0	2.8
MO63-40 OH7BXOH29 CI42AXMO13	103.2	17.8	99	10.1	20.2	2.5	3.5
PIONEER 312A	102.9	20.2	98	0.0	19.7	2.6	3.1
MO64-17 MO17XC103 MO61004XM05	102.8	20.9	98	0.0	7.6	6.8	2.8
MO63-34 H49XB41 MO17	102.7	16.5	88	0.0	8.6	1.0	3.0
MO63-54 SOURCE(M) WF9XB41 C103	101.5	17.0	93	3.6	3.6	7.1	2.9
MO64-27 B14XB37 MO17XC103	101.3	16.4	97	0.0	6.0	9.5	3.0
MO63-4 WF9XH49 MO17XC103	101.0	16.7	86	7.8	2.9	4.9	2.9
MO1022 WF9XB41 MO5XK148	100.7	18.7	97	2.6	8.6	5.2	2.8
MO63-54 SOURCE(J) WF9XB41 C103	100.7	15.7	87	0.0	2.9	6.7	3.0
MO65-9 MO5XC121E B37XM017	100.0	21.8	95	0.0	7.0	0.9	2.8
MO843 WF9XOH7A B10XC103	99.5	18.3	94	3.5	15.9	4.4	3.1
MO880 WF9X38-11 K148XM05	97.2	16.1	98	0.0	17.1	6.8	2.6
MO63-7 H49XB41 MO17XC103	96.8	16.5	97	0.0	6.9	12.9	3.3
DE KALB 805	96.3	14.8	85	21.6	4.9	5.9	2.8
MFA K6	94.8	16.7	99	2.5	9.2	5.0	3.0
MFA 2222	94.8	15.8	91	0.0	15.6	0.9	2.6
KAN1639 WF9X38-11 K150XK148	91.7	15.3	96	2.6	22.6	3.5	3.1
US13 WF9X38-11 L317XHY	91.5	14.8	99	0.0	23.5	10.9	3.3
MO8 K4XB2 GXL3	83.3	23.9	94	8.0	35.4	5.3	3.4
MO804 CI7XK4 38-11XC121E	81.1	21.4	79	0.0	32.6	1.1	3.3
MEAN	106.3	17.5	94	2.3	11.1	4.2	3.1

Differences in yield between any two hybrids of less than 11.8 bushels are not considered significant.

* 1000 Maturity Series

Table 10. 1966 performance record for midseason yellow double crosses (700-800 Maturity Series).
 Tested near Golden City, Missouri. Planted May 4, 1966. Harvested October 18, 1966
 (Exp. 23).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
MOSX-7 T204XGT112*	144.4	21.5	67	0.0	5.3	0.8	5.4
MO62-10 WF9XB41 MO6XCI21E	137.8	17.0	87	5.8	11.0	0.0	3.9
MOSX-10 B37XCI21E	135.4	17.2	84	6.0	4.2	0.0	4.1
MO881 OH7BXOH29 CI21EXM07	134.4	17.8	79	3.8	10.8	0.0	3.9
MO65-1 H49XM05 MO17XCI21E	131.4	18.3	86	0.0	8.1	2.3	3.9
MO65-6 MO5XH49 H60XCI21E	130.9	17.2	83	1.8	6.6	1.2	3.6
MO916 MO6XCI21E OH7BXOH29	128.2	17.2	81	5.0	14.3	1.2	4.1
MO64 (WF9TmsXH49) (MO6XOH29)	127.2	16.5	91	0.0	9.3	1.6	3.9
MO62-14 H49XB41 MO13XM06	126.1	19.4	90	8.9	12.8	2.2	4.4
MO62-7 H49XCI38B MO5XK148	124.8	17.4	75	2.0	16.1	0.0	3.6
MO65-10 H49XB37 MO17	122.9	17.0	80	2.5	8.8	0.0	3.6
MO65-5 MO17XM05 CI21EXK148	122.7	19.9	80	0.0	5.0	1.3	3.3
MO65-9 MO5XCI21E B37XM017	121.9	18.1	83	3.6	9.0	0.0	3.5
MO63-7 H49XB41 MO17XC103	121.0	16.9	73	2.7	4.8	3.4	4.0
MO63-34 H49XB41 MO17	121.0	16.0	79	2.5	12.0	0.6	3.8
MO65-2 H60XCI21E B37XM05	118.9	16.4	80	3.8	5.0	0.6	3.5
MO65-3 MO5XH49 CI21EXK148	118.8	18.7	87	3.4	12.1	1.7	3.8
MO65-7 H49XCI21E MO17XM05	118.7	18.3	85	0.0	11.8	1.2	3.4
MO804 CI7XK4 38-11XCI21E	117.3	16.1	69	0.0	33.6	0.7	4.1
MO64-27 B14XB37 MO17XC103	116.7	15.7	76	0.0	6.0	0.7	3.8
MO63-40 OH7BXOH29 CI42AXMO13	115.9	20.7	90	14.4	13.3	0.0	4.3
MO65-8 H60XCI21E B37XH49	114.6	16.7	76	0.0	5.9	0.0	3.8
MFA 2222	112.4	18.3	76	0.0	5.3	0.0	3.1
MO63-4 WF9XH49 MO17XC103	112.0	15.3	82	0.0	7.3	3.7	3.6
MO63-31 WF9XH49 MO17	111.8	14.8	83	0.0	9.6	1.2	3.3
MO880 WF9X38-11 K148XM05	111.6	17.4	76	3.9	13.2	0.0	3.5
PIONEER 3306	108.7	15.1	80	0.0	7.5	0.6	3.8
DEKALB 1006	108.2	23.6	78	7.7	18.1	0.0	4.5
MO63 WF9XB41 MO17XC103	108.1	15.6	83	0.0	9.6	4.2	3.9
PIONEER 312A	107.7	16.9	74	0.0	22.3	0.0	3.5
MO843 WF9XOH7A B10XC103	107.6	16.1	80	1.9	18.8	3.1	3.6
MO64-17 MO17XC103 MO61004XM05	106.0	18.8	78	0.0	6.4	0.0	3.5
MO1023 WF9XB41 MO5XC103	105.7	17.8	84	0.0	7.2	1.2	3.1
PIONEER 321	104.9	16.5	76	0.0	15.9	2.0	3.5
KAN1639 WF9X38-11 K150XK148	104.1	16.0	87	0.0	13.9	1.7	3.6
MO 1022 WF9XB41 MO5XK148	102.8	17.6	76	0.0	4.6	0.7	3.3
MO63-54 SOURCE J WF9XB41 C103	102.4	15.7	54	0.0	3.7	3.7	3.8
MO63-54 SOURCE M WF9XB41 C103	99.7	16.9	78	0.0	11.0	2.6	3.3
MO62-18A WF9XOH7A MO17XC103	99.4	16.2	81	0.0	4.3	1.2	3.5
MO65-11 H49XB37 OH7B	99.2	15.5	45	0.0	5.6	1.1	3.9
MO63-3 WF9XW64A MO17XC103	99.2	14.7	80	0.0	6.9	3.8	3.1
MO64-18 MO17XC103 MO61004XWF9	98.2	18.1	63	0.0	11.9	0.0	3.6
US13 WF9X38-11 L317XHY	97.5	15.7	77	9.8	23.5	1.3	4.0
MFA 3232	97.0	16.7	76	0.0	16.6	0.0	3.1
MFA K6	92.6	16.2	75	0.0	10.0	1.3	3.4
MO8 K4XB2 GXL3	89.5	20.2	84	10.8	26.9	0.0	4.1
DEKALB 805	85.4	14.8	69	0.0	5.1	0.7	3.1
MO65-4 MO17XM05 CI21EXCI38B	84.7	19.7	86	0.0	9.4	0.0	3.1
MEAN	112.7	17.3	78	2.1	10.8	1.1	3.7

Differences in yield between any two hybrids of less than 21.5 bushels are not considered significant.

* 1000 Maturity Series

Table 11. 1966 performance record for midseason yellow double crosses (700-800 Maturity Series).
Tested near Slater, Missouri (Exp. 24).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
MO62-14 H49XB41 MO13XM06	81.2	17.4	97	9.0	15.5	3.9	5.0
MO881 OH7BXOH29 CI21EXM07	80.6	17.2	99	19.0	27.8	3.8	4.6
PIONEER 3306	79.6	15.9	93	21.5	14.1	5.4	4.4
MO65-10 H49XB37 MO17	79.5	14.4	98	10.8	21.7	5.7	4.6
MOSX-10 B37XC121E	79.0	16.9	98	11.5	14.1	4.5	4.9
MO65-4 MO17XM05 CI21EXCI38B	76.7	19.0	101	10.5	24.1	5.6	4.6
MO65-2 H60XC121E B37XM05	74.4	17.8	95	20.4	13.8	3.3	4.4
MO65-8 H60XC121E B37XH49	72.1	15.4	93	16.1	17.4	4.0	4.8
DEKALB 1006	71.6	17.4	101	8.1	32.9	6.8	5.3
MO63-34 H49XB41 MO17	71.3	15.2	100	23.1	16.3	10.6	4.8
MO64-17 MO17XC103 MO61004XM05	70.8	17.2	91	2.8	14.5	4.8	4.6
MFA 2222	69.6	16.4	93	7.4	20.9	2.7	4.3
MO916 MO6XC121E OH7BXOH29	69.0	18.3	96	24.0	31.8	5.8	4.9
MO63-31 WF9XH49 MO17	68.3	15.7	85	41.2	28.7	5.1	4.1
MO62-10 WF9XB41 MO6XC121E	68.1	16.8	98	19.2	23.1	5.8	4.8
MO1023 WF9XB41 MO5XC103	67.7	16.7	91	13.0	21.2	5.5	4.8
MO64 (WF9TmsXH49)(MO6XOH29)	67.6	15.6	97	18.7	21.9	8.4	4.8
MFA K6	66.6	16.3	90	8.3	21.5	4.2	4.5
MO62-18A WF9XOH7A MO17XC103	66.4	14.6	94	15.2	25.2	7.3	4.3
MO64-18 MO17XC103 MO61004XWF9	66.4	16.2	96	5.2	20.3	6.5	4.3
MO65-1 H49XM05 MO17XC121E	66.0	17.4	95	12.5	15.1	9.2	4.8
MO65-5 MO17XM05 CI21EXK148	65.0	17.2	91	15.2	22.8	7.6	4.3
MO63-54 SOURCE M WF9XB41 C103	62.6	16.4	100	16.3	23.8	9.4	4.3
MO65-9 MO5XC121E B37XM017	62.1	18.0	93	14.9	27.0	4.7	4.4
MOSX-7 T204XGI112*	61.9	21.3	96	4.6	33.3	10.5	5.4
MO62-7 H49XC138B MO5XK148	61.7	18.3	96	17.6	29.4	4.6	4.6
MO65-6 MO5XH49 H60XC121E	61.4	16.6	98	10.8	17.8	5.7	4.6
MO63-4 WF9XH49 MO17XC103	61.4	15.0	97	10.3	12.9	11.6	4.6
MO63-40 OH7BXOH29 CI42AXMO13	61.3	17.2	91	31.5	26.0	2.1	4.1
MFA 3232	60.0	16.4	96	6.5	20.9	4.6	4.4
MO65-7 H49XC121E MO17XM05	59.9	18.0	95	7.2	21.1	3.3	4.3
MO1022 WF9XB41 MO5XK148	59.7	16.7	98	43.9	14.0	3.8	4.6
MO65-3 MO5XH49 CI21EXK148	59.3	19.7	94	21.2	21.2	2.6	4.9
MO63-7 H49XB41 MO17XC103	58.7	16.1	93	5.4	17.4	10.1	4.9
MO65-11 H49XB37 OH7B	57.4	16.3	68	22.2	20.4	3.7	4.8
MO64-27 B14XB37 MO17XC103	56.1	16.6	91	17.8	21.9	5.5	4.3
PIONEER 321	54.4	16.3	95	15.1	29.6	4.6	4.3
PIONEER 312A	53.6	18.0	88	6.4	27.0	4.3	4.3
KAN1639 WF9X38-11 K150XK148	53.3	15.5	95	21.1	29.6	9.9	4.3
MO63-3 WF9XW64A MO17XC103	53.1	14.9	96	18.8	21.4	7.1	4.4
MO880 WF9X38-11 K148XM05	52.3	16.2	97	27.7	25.8	7.1	4.1
DEKALB 805	52.0	15.7	95	19.7	36.2	9.2	4.3
MO843 WF9XOH7A B10XC103	49.9	16.3	93	20.3	46.6	9.5	4.3
MO63 WF9XB41 MO17XC103	46.7	15.1	96	3.9	17.0	7.8	4.5
US13 WF9X38-11 L317XHY	45.2	16.1	98	18.5	35.0	8.3	4.5
MO8 K4XB2 GXL3	37.5	17.2	89	15.5	61.3	4.2	4.6
MO63-54 SOURCE J WF9XB41 C103	36.6	15.4	59	4.2	13.7	12.6	4.8
MO804 CI7XK4 38-11XC121E	32.5	16.9	84	10.4	62.7	8.2	4.5
MEAN	62.3	16.7	93	15.5	24.5	6.3	4.6

Differences in yield between any two hybrids of less than 21.3 bushels are not considered significant.

* 1000 Maturity Series

Table 12. 1966 performance record for midseason yellow double crosses (700-800 Maturity Series).
 Tested at Rollins Field near Columbia, Missouri. Planted June 11, 1966. Harvested
 November 11, 1966 (Exp. 25).

HYBRID	ACRE	MOISTURE	STAND	LODGED	PLANTS	DROPPED	EAR
	YIELD	IN GRAIN		ROOT	STALK	EARS	
	BU.	%	%	%	%	%	GRADE
MO916 MO6XC121E OH7BXOH29	105.6	20.3	94	0.0	17.7	0.9	4.5
MOSX-10 B37XC121E	103.1	23.3	93	0.0	9.0	0.0	4.3
MO64 (WF9TmsXH49)(Mo6XOH29)	102.5	19.0	93	0.9	9.8	0.0	3.8
MFA K6	99.7	19.5	93	0.0	9.0	1.8	3.9
DEKALB 805	98.9	18.2	92	0.0	11.8	0.9	3.6
PIONEER 321	96.6	20.5	96	0.0	15.7	2.6	3.8
PIONEER 3306	96.1	17.1	88	0.0	10.5	0.0	3.8
MO881 OH7BXOH29 CI21EXM07	95.0	18.6	89	0.0	20.6	0.0	3.9
MO65-3 MO5XH49 CI21EXK148	94.1	24.8	84	0.0	5.9	0.0	3.9
MO63-54 SOURCE J WF9XB41 C103	93.6	19.5	83	0.0	7.0	1.0	4.0
MO63-3 WF9XW64A MO17XC103	93.2	17.9	93	0.9	7.2	2.7	3.9
MO65-1 H49XM05 MO17XC121E	92.7	24.0	77	0.0	10.9	1.1	3.9
MO65-11 H49XB37 OH7B	92.6	17.7	78	0.0	4.3	0.0	3.9
MO65-8 H60XC121E B37XH49	92.4	21.4	83	0.0	8.1	0.0	4.0
MO1022 WF9XB41 MO5XK148	92.4	21.1	98	0.0	9.3	0.8	3.6
MO65-7 H49XC121E MO17XM05	92.1	20.6	95	0.0	21.9	0.9	3.9
MO62-7 H49XC138B MO5XK148	91.2	22.4	88	0.9	8.5	0.0	3.9
MO63-4 WF9XH49 MO17XC103	91.0	19.7	85	9.8	8.8	0.0	3.6
MO62-10 WF9XB41 MO6XC121E	90.9	22.4	93	2.7	15.2	0.9	4.1
MO63-40 OH7BXOH29 CI42AXM013	90.8	21.4	88	0.0	17.0	0.0	4.6
MO63-31 WF9XH49 MO17	90.5	16.4	89	5.6	13.1	0.9	3.9
MO62-14 H49XB41 MO13XM06	90.3	23.7	93	18.9	16.2	0.9	4.1
MO65-9 MO5XC121E B37XM017	89.8	22.7	87	0.0	9.6	1.0	3.9
MO65-4 MO17XM05 CI21EXCI38B	88.9	20.8	91	0.0	8.3	0.0	4.0
MO63-54 SOURCE M WF9XB41 C103	88.4	23.8	93	0.0	10.8	0.9	3.6
MO65-6 MO5XH49 H60XC121E	87.9	19.8	90	0.0	11.1	1.9	3.8
MO1023 WF9XB41 MO5XC103	87.2	22.0	95	0.0	8.8	0.9	3.8
MO63 WF9XB41 MO17XC103	87.1	19.8	95	8.8	14.9	0.9	4.0
MO63-7 H49XB41 MO17XC103	86.2	20.1	98	15.3	12.7	0.8	4.3
PIONEER 312A	85.8	21.7	90	0.9	18.5	2.8	3.9
MO804 CI7XK4 38-11XC121E	85.7	20.5	93	0.0	36.6	0.0	4.5
MO65-10 H49XB37 MO17	85.6	20.0	76	0.0	7.7	1.1	4.0
MO65-2 H60XC121E B37XM05	85.3	24.0	90	0.0	5.6	0.9	3.9
MO64-27 B14XB37 MO17XC103	85.3	19.0	97	0.0	7.8	0.0	3.6
MO64-17 MO17XC103 MO61004XM05	85.0	23.7	85	0.0	6.9	0.0	4.1
MFA 2222	84.8	18.8	93	0.0	13.4	0.9	3.8
MO880 WF9X38-11 K148XM05	84.6	19.3	91	1.8	16.5	0.9	4.0
US 13 WF9X38-11 L317XHY	82.3	17.4	85	0.0	32.4	1.0	4.3
DEKALB 1006	82.1	25.1	93	0.0	7.1	0.0	4.5
MO63-34 H49XB41 MO17	81.5	19.5	90	28.7	26.9	2.8	4.1
MFA 3232	81.5	21.1	93	0.0	9.8	1.8	3.6
MO65-5 MO17XM05 CI21EXK148	81.4	27.1	97	0.0	12.9	1.7	3.9
MO843 WF9XOH7A B10XC103	80.8	20.5	93	0.0	17.0	2.7	3.9
MO64-18 MO17XC103 MO61004XWF9	79.1	22.9	93	0.0	15.3	0.0	3.8
KAN 1639 WF9X38-11 K150XK148	78.4	20.6	95	0.0	50.0	0.0	4.0
MO62-18A WF9XOH7A MO17XC103	73.6	19.7	90	0.0	14.8	0.0	3.8
MOSX-7 T204XGT112*	73.4	34.3	97	10.3	29.3	0.9	6.0
MO8 K4XB2 GXL3	62.5	27.7	84	3.0	47.5	1.0	4.4
MEAN	88.3	21.3	90	2.3	14.8	0.8	4.0

Differences in yield between any two hybrids of less than 8.1 bushels are not considered significant.

1000 Maturity Series

Table 13. Summary of performance records for midseason yellow double crosses (700-800 Maturity Series).
 Tested at two locations near Columbia, Golden City, and Slater, Missouri (Expts. 22, 23, 24
 and 25).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED PLANTS ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
MO65-1 H49XM05 MO17XC121E	99.9	20.1	87	3.1	11.7	3.4	3.9
MO65-2 H60XC121E B37XM05	99.5	19.0	91	6.1	8.4	1.6	3.7
MO65-3 MO5XH49 CI21EXK148	98.1	20.1	91	6.8	12.6	1.9	3.9
MO65-4 MO17XM05 CI21EXCI38B	91.4	19.0	92	2.6	14.4	1.9	3.6
MO65-5 MO17XM05 CI21EXK148	95.5	20.5	92	4.2	11.7	3.7	3.6
MO65-6 MO5XH49 H60XC121E	99.5	17.7	92	4.2	11.4	3.1	3.8
MO65-7 H49XC121E MO17XM05	96.7	18.7	92	1.8	15.5	2.9	3.7
MO65-8 H60XC121E B37XH49	97.2	17.5	86	4.0	9.7	1.7	4.0
MO65-9 MO5XC121E B37XM017	93.5	20.2	90	4.6	13.2	1.7	3.7
MO65-10 H49XB37 MO17	98.9	16.9	88	3.3	11.1	2.6	3.8
MO65-11 H49XB37 OH7B	88.7	16.4	71	5.6	8.7	1.9	4.0
DEKALB 805	83.2	15.9	85	10.3	14.5	4.2	3.5
MO63-4 WF9XH49 MO17XC103	91.4	16.7	88	7.0	8.0	5.1	3.7
MO1023 WF9XB41 MO5XC103	92.4	18.5	91	3.3	11.3	3.0	3.6
MFA K6	88.4	17.2	89	2.7	12.4	3.1	3.7
MO63-54 SOURCE M WF9XB41 C103	88.1	18.5	91	5.0	12.3	5.0	3.5
MO63-31 WF9XH49 MO17	94.1	15.9	89	12.1	14.1	2.2	3.6
MO63-7 H49XB41 MO17XC103	90.7	17.4	90	5.9	10.5	6.8	4.1
MO64-17 MO17XC103 MO61004XM05	91.2	20.2	88	0.7	8.9	2.9	3.8
MO63-34 H49XB41 MO17	94.1	16.8	89	13.6	16.0	3.8	3.9
MO62-7 H49XC138B MO5XK148	98.2	19.3	89	5.1	16.1	2.0	3.8
MO63 WF9XB41 MO17XC103	87.2	16.1	93	3.6	12.7	4.3	3.9
MO62-18A WF9XOH7A MO17XC103	86.8	16.9	91	4.7	13.0	4.3	3.7
MO1022 WF9XB41 MO5XK148	88.9	18.5	92	11.6	9.1	2.6	3.6
MO63-54 SOURCE J WF9XB41 C103	83.3	16.6	71	1.1	6.8	6.0	3.9
MO63-3 WF9XW64A MO17XC103	88.9	15.7	92	5.1	8.9	5.7	3.6
MO64-18 MO17XC103 MO61004XWF9	88.0	18.9	85	1.3	12.4	2.6	3.7
MO62-10 WF9XB41 MO6XC121E	101.7	18.4	93	7.6	14.8	2.6	4.0
MO880 WF9X38-11 K148XM05	86.4	17.3	91	8.4	18.2	3.7	3.6
KAN 1639 WF9X38-11 K150XK148	81.9	16.9	93	5.9	29.0	3.8	3.8
MO843 WF9XOH7A B10XC103	84.5	17.8	90	6.4	24.6	4.9	3.7
MO64-27 B14XB37 MO17XC103	89.9	16.9	90	4.5	10.4	3.9	3.7
US 13 WF9X38-11 L317XHY	79.1	16.0	90	7.1	28.6	5.4	4.0
PIONEER 3306	100.6	16.2	90	5.6	12.6	1.5	3.8
MOSX-10 B37XC121E	110.0	19.1	94	4.4	9.1	1.8	4.2
MO62-14 H49XB41 MO13XM06	103.4	19.9	94	12.4	13.5	4.6	4.2
MO64 (WF9TmsXH49)(Mo6XOH29)	102.0	16.9	94	7.1	12.9	3.0	3.9
MO881 OH7BXOH29 CI21EXM07	106.4	17.7	89	5.7	18.6	1.7	3.9
MOSX-7 T204XGT112*	102.0	23.1	88	4.4	20.5	4.0	5.4
MO63-40 OH7BXOH29 CI42AXM013	92.8	19.3	92	14.0	19.1	1.2	4.1
DEKALB 1006	94.0	21.9	93	4.6	18.0	2.4	4.6
PIONEER 321	91.0	17.6	92	3.8	18.9	2.7	3.6
MO916 MO6XC121E OH7BXOH29	104.6	18.4	90	7.3	18.1	2.0	4.2
PIONEER 312A	87.5	19.2	88	1.8	21.9	2.4	3.7
MO804 CI7XK4 38-11XC121E	79.2	18.7	81	2.6	41.4	2.5	4.1
MO8 K4XB2 GXL3	68.2	22.3	88	9.3	42.8	2.6	4.1
MFA 2222	90.4	17.3	88	1.9	13.8	1.1	3.5
MFA 3232	85.6	17.9	87	1.6	14.1	1.9	3.5
MEAN	92.4	18.2	89	5.5	15.3	3.1	3.9

* 1000 Maturity Series

Table 14. 1966 performance record for midseason yellow double crosses (800 Maturity Series).
 Tested at Rollins Field near Columbia, Missouri. Planted June 11, 1966. Harvested
 November 11, 1966 (Exp. 39).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
MO63-3 WF9XH49 MO17	107.7	16.9	98	14.5	17.1	4.3	4.0
DEKALB 805A	100.4	17.1	86	0.0	8.7	1.0	4.0
MO1023 WF9XB41 MO5XC103	99.3	17.8	89	0.0	15.0	0.9	3.8
MO64-4 WF9XH49 C103XMO17	99.2	18.1	84	5.0	8.9	0.0	4.3
MO63-34 H49XB41 MO17	98.3	17.1	99	10.1	16.0	1.7	4.1
AA1924 H49XWF9 C123XMO17	97.3	16.5	95	0.0	21.9	1.8	4.0
MO63-54 WF9XB41 C103	96.6	20.4	88	0.0	7.5	1.9	4.1
AA1935 B37XH84 C123XMO17	96.4	20.2	96	0.0	6.1	2.6	3.6
PIONEER 3306	95.1	19.9	92	0.0	2.7	0.0	4.0
AA1927 WF9XAG9A C123XMO17	93.3	16.9	96	0.0	24.3	0.9	3.6
MO63 B41XWF9 C103XMO17	92.8	17.8	92	2.7	15.5	6.4	4.1
MO64-27 B41XB37 MO17XC103	92.6	16.7	92	0.0	7.3	0.0	3.9
AA1922 B41XWF9 C123XMO17	91.4	16.8	93	0.9	17.0	1.8	3.9
MFA K6	89.9	20.7	85	0.0	6.9	1.0	4.0
MO62-18A WF9XOH7A MO17XC103	88.0	20.4	94	0.0	11.5	1.8	3.8
MO65-10 H49XB37 MO17	87.8	19.4	81	0.0	7.2	2.1	4.0
AA1932 AG37DXB37 C123XMO17	87.0	22.1	94	0.0	4.4	1.8	3.8
US13 WF9X38-11 L317XHY	86.4	17.1	86	0.0	39.8	1.9	4.6
AA1923 H49XW64A C123XMO17	84.7	19.0	92	0.9	22.7	5.5	3.6
MO63-7 H49XB41 MO17XC103	81.9	19.6	83	11.0	12.0	3.0	4.3
MEAN	93.3	18.5	91	2.3	13.6	2.0	4.0

Differences in yield between any two hybrids of less than 10.7 bushels are not considered significant.

Table 15. Summary of 2-year (1965-66; 7 tests), 3-year (1964-65-66; 10 tests), 4-year (1963-64-65-66; 13 tests), and 5-year (1962-63-64-65-66; 15 tests) performance records for Late Yellow Doubles (900 maturity series).

Hybrid	Pedigree	Acre yield bu.				Stalk lodged plants %				Ear height grade			
		2 yr.	3 yr.	4 yr.	5 yr.	2 yr.	3 yr.	4 yr.	5 yr.	2 yr.	3 yr.	4 yr.	5 yr.
Mo64	(Mo6xOh29)(WF9TmsxH49)	107.9	106.4	103.4	102.7	12.2	9.7	9.9	13.7	4.3	4.9	4.6	4.4
Mo804	(CI7xK4)(38-11xCI21E)	89.2	90.8	91.4	91.6	37.5	28.4	23.2	24.3	4.1	4.1	4.1	4.2
Mo881	(Oh7BxOh29)(CI21ExMo7)	108.8	106.9	101.3	99.8	20.7	15.7	13.1	14.7	4.0	4.0	4.0	3.9
Mo916	(Mo6xCI21E)(Oh7BxOh29)	104.5	104.8	101.8	99.8	19.2	14.1	11.5	15.5	4.0	4.0	4.0	4.0
Mo1023	(WF9xB41)(Mo5xC103)	114.4	110.1	104.2	102.4	9.4	7.2	6.3	8.0	3.8	3.8	3.8	3.8
Mo8	(K4xB2)(GxL3)	86.3				41.9				4.1			
Mo63-40	(Oh7BxOh29)(CI42AxMo13)	99.9				17.7				3.9			
DeKalb 1006		96.6				16.2				4.4			
Pioneer 312A		95.2				20.5				3.7			
MoSX10	B37xCI21E	112.9				12.3				4.1			
Mo62-14	(H49xB41)(Mo13xMo6)	109.6				11.6				4.1			
MoSX7	T204xGT112	105.9				15.4				5.2			
Pioneer 321		98.7				15.9				3.6			
Mean		102.3	103.8	100.4	99.3	19.3	15.0	12.8	15.2	4.1	4.2	4.1	4.1

Table 16. Summary of 2-year (1965-66; 7 tests), 3-year (1964-65-66; 10 tests), 4-year (1963-64-65-66; 13 tests), and 5-year (1962-63-64-65-66; 15 tests) performance records for Midseason Yellow Doubles (800 maturity series).

Hybrid	Pedigree	Acre yield bu.				Stalk lodged plants %				Ear height grade			
		2 yr.	3 yr.	4 yr.	5 yr.	2 yr.	3 yr.	4 yr.	5 yr.	2 yr.	3 yr.	4 yr.	5 yr.
Mo843	(WF9xOh7A)(B10xC103)	102.7	102.1	94.6	93.9	26.9	21.3	17.0	18.8	3.8	3.8	3.8	3.7
Mo880	(WF9x38-11)(K148xMo5)	103.7	99.7	93.3	92.7	14.2	11.3	9.4	11.5	3.7	3.7	3.6	3.6
US13	(WF9x38-11)(L317xHy)	95.2	96.1	89.7	89.6	30.1	24.7	23.2	24.1	4.1	4.0	4.0	4.0
Kan 1639	(WF9x38-11)(K150xK148)	102.4	99.9	96.4	95.7	23.9	18.9	15.3	17.1	3.8	3.7	3.6	3.6
Mo1022	(WF9xB41)(Mo5xK148)	108.8	106.5	98.7	98.3	8.8	7.0	5.8	8.6	3.6	3.6	3.6	3.6
MFA K6		117.5	109.4	104.0	103.5	10.8	8.5	7.4	10.0	3.8	3.8	3.7	3.7
DeKalb 805		110.5	109.4	102.6	103.4	12.5	15.9	12.4	14.5	3.6	3.6	3.6	3.6
Mo62-7	(H49xCI38B)(Mo5xK148)	114.6	112.3	104.2		11.3	7.8	6.5		3.8	3.8	3.5	
Mo62-10	(WF9xB41)(Mo6xCI21E)	113.9	111.3	102.9		13.4	11.2	9.1		4.0	4.0	4.0	
Mo63-54 (Source J)	(WF9xB41)(C103)	105.9				8.9				3.9			
Mo63-54 (Source M)	(WF9xB41)(C103)	111.6				10.7				3.7			
Mo63-4	(WF9xH49)(Mo17xC103)	113.9				7.4				3.8			
Mo63-31	(WF9xH49)(Mo17)	114.2				10.2				3.7			
Mo63-7	(H49xB41)(Mo17xC103)	112.5				12.1				4.1			
Mo64-17	(Mo17xC103)(Mo61004xMo5)	111.3				7.4				3.8			
Mo63-34	(H49xB41)(Mo17)	112.6				12.9				3.9			
Mo63	(WF9xB41)(Mo17xC103)	108.9				11.4				3.9			
Mo62-18A	(WF9xOh7A)(Mo17xC103)	108.3				11.4				3.8			
Mo63-3	(WF9xW64A)(Mo17xC103)	104.7				8.1				3.7			
Mo64-18	(Mo17xC103)(Mo61004xWF9)	107.5				9.9				3.8			
Mo64-27	(B14xB37)(Mo17xC103)	105.2				8.1				3.8			
Mean		108.9	105.2	98.5	96.7	12.9	14.1	11.8	14.9	3.8	3.8	3.7	3.7

COOPERATIVE UNIFORM PERFORMANCE TRIALS

Midseason Yellow Single Crosses

(700–800 Maturity Series)

Performance records for 45 single crosses of 10 inbred lines grown near Columbia and Mt. Vernon, Mo., respectively, are presented in Tables 17 and 18. The mean performance for both locations is presented in Table 19. The average performance for the parental inbreds as measured by their single-cross progeny is given in Table 20.

<i>Inbred</i>	<i>Parentage</i>
B14A	Cuzco x B14 ⁸
H55	(Hy x Mo21A)Hy ²
B37	Iowa Stiff Stalk Syn.
WF9	Wilson Farm Reid
N28	sss ₁ Syn-2
B45	(W22 x B10)Sel.
N6G	N6/H. G. 26
Oh7N	Oh41 x Oh7A
C103	Lancaster Sure crop
Oh45B	(M14 x 187-2)Oh45) Oh45

Table 17. 1966 performance record for the cooperative uniform yield trial of midseason yellow single crosses (700-800 Maturity Series). Tested at Bradford Farm near Columbia, Missouri. Planted May 25, 1966. Harvested November 16, 1966 (Exp. 26).

Hybrid	Acre yield bu.	Moisture in grain %	Stand %	Lodged plants		Dropped ears %	Ear height grade
				Root %	Stalk %		
N28 x C103	135.4	19.0	97	0.0	5.2	3.4	2.8
B45 x C103	121.8	16.3	100	0.0	18.3	3.3	3.3
H55 x C103	121.1	20.0	98	0.0	10.2	5.1	3.3
B45 x N6G	117.9	17.8	100	0.0	28.3	0.0	3.3
B37 x C103	116.6	18.3	102	0.0	0.0	1.6	3.0
B45 x Oh7N	110.5	16.9	100	0.0	46.7	1.7	3.0
H55 x N28	109.4	20.1	95	0.0	5.3	0.0	3.5
WF9 x N28	108.4	18.4	100	0.0	6.7	0.0	2.5
B14A x N6G	107.2	14.7	100	0.0	26.7	3.3	2.8
H55 x B37	107.2	17.4	92	0.0	23.6	1.8	4.0
N6G x Oh7N	106.8	19.4	97	0.0	22.4	1.7	3.3
H55 x N6G	106.7	18.3	98	20.3	52.5	0.0	3.8
B14A x Oh45B	106.2	16.6	98	0.0	11.9	0.0	3.0
H55 x Oh7N	106.1	16.7	100	15.0	28.3	0.0	3.5
Oh7N x C103	105.2	18.3	100	1.7	10.0	5.0	2.8
H55 x Oh45B	104.4	20.5	98	10.2	35.6	1.7	3.8
N28 x Oh45B	104.3	24.0	100	0.0	3.3	0.0	3.0
B14A x C103	103.5	15.6	98	0.0	0.0	3.4	2.8
B37 x Oh7N	103.4	16.4	100	0.0	25.0	1.7	3.0
H55 x B45	102.8	15.7	98	0.0	37.3	1.7	3.5
WF9 x B45	102.6	15.1	100	0.0	3.3	1.7	2.8
B45 x Oh45B	102.5	16.4	95	5.3	49.1	0.0	3.0
N6G x C103	102.4	21.6	100	0.0	3.3	5.0	3.0
N28 x N6G	102.1	22.5	100	0.0	5.0	0.0	2.8
C103 x Oh45B	101.9	19.9	98	0.0	3.4	1.7	2.8
B37 x Oh45B	101.1	18.6	97	0.0	5.2	0.0	2.8
AES 704	100.3	15.6	97	0.0	8.6	0.0	3.0
H55 x WF9	100.1	14.9	100	0.0	21.7	0.0	3.5
B37 x N6G	100.0	19.7	98	5.1	3.4	3.4	3.0
Oh7N x Oh45B	99.7	20.0	98	0.0	39.0	1.7	3.3
AES 702	99.3	15.9	100	0.0	11.7	3.3	3.0
WF9 x N6G	99.2	14.6	98	0.0	5.1	0.0	2.8
B14A x WF9	98.1	13.2	100	0.0	1.7	0.0	2.8
B14A x Oh7N	97.7	13.4	100	0.0	13.3	3.3	3.3
WF9 x Oh7N	97.3	14.8	95	0.0	12.3	0.0	3.0
B14A x B37	96.9	13.8	100	0.0	0.0	0.0	3.0
B37 x B45	96.7	16.0	100	0.0	5.0	0.0	3.0
N28 x Oh7N	94.1	16.9	100	0.0	15.0	0.0	2.5
B14A x H55	93.8	15.5	97	0.0	20.7	3.4	3.5
B37 x WF9	92.4	16.3	98	0.0	1.7	0.0	3.0
B37 x N28	92.0	21.8	100	0.0	0.0	1.7	3.0
B14A x N28	91.8	15.1	97	0.0	3.4	1.7	2.8
WF9 x Oh45B	91.3	15.0	88	0.0	0.0	1.9	2.8
N6G x Oh45B	90.0	17.4	95	5.3	12.3	0.0	2.5
WF9 x C103	85.8	14.4	100	8.3	1.7	1.7	2.8
N28 x B45	85.4	17.8	90	0.0	13.0	0.0	2.8
US 13 (WF9x38-11)(L317xHy)	85.0	14.2	100	0.0	16.7	0.0	3.3
B14A x B45	81.7	13.4	95	0.0	19.3	0.0	2.8
Mean	101.8	17.2	98	1.5	14.4	1.4	3.1

Table 18. 1966 performance record for the cooperative uniform yield trial of midseason yellow single crosses (700-800 Maturity Series). Tested near Mt. Vernon, Missouri. Planted May 5, 1966. Harvested October 27, 1966 (Exp. 27).

Hybrid	Acre yield bu.	Moisture in grain %	Stand %	Lodged plants		Dropped ears %	Ear height grade
				Root %	Stalk %		
H55 x N28	76.2	16.2	95	0.0	5.3	0.0	2.8
N28 x C103	67.9	17.2	88	0.0	7.5	0.0	2.5
B37 x N28	65.9	17.3	98	0.0	3.4	0.0	2.8
N28 x B45	65.0	16.4	95	0.0	10.5	0.0	2.5
B37 x Oh45B	63.6	15.2	95	0.0	8.8	0.0	2.8
B37 x Oh7N	60.5	15.4	85	0.0	7.8	0.0	2.3
B45 x Oh45B	60.4	16.1	98	0.0	10.2	0.0	2.8
H55 x B45	60.0	14.3	92	0.0	9.1	0.0	2.5
N28 x Oh45B	60.0	18.6	88	0.0	15.1	0.0	2.8
H55 x N6G	59.5	14.6	93	0.0	10.7	1.8	2.8
B45 x Oh7N	58.9	14.3	90	0.0	7.4	0.0	2.8
H55 x B37	57.6	14.2	93	0.0	8.9	0.0	3.0
B45 x C103	56.9	15.0	73	0.0	2.3	0.0	2.3
B37 x B45	55.6	14.0	95	0.0	0.0	0.0	2.8
B14A x Oh7N	54.8	12.3	93	0.0	8.9	0.0	2.5
H55 x Oh7N	53.5	14.0	93	0.0	14.3	0.0	2.8
H55 x Oh45B	52.4	15.5	90	0.0	5.6	0.0	3.0
B14A x N28	52.3	15.2	97	0.0	0.0	0.0	2.5
B14A x H55	51.0	13.1	85	0.0	0.0	0.0	3.0
WF9 x B45	50.3	12.8	95	0.0	5.3	0.0	2.3
WF9 x N28	49.5	15.2	95	0.0	10.5	0.0	2.5
N28 x N6G	49.0	16.1	87	0.0	9.6	0.0	2.3
N28 x Oh7N	48.9	14.7	92	0.0	3.6	0.0	2.5
B14A x Oh45B	47.8	14.8	97	0.0	5.2	0.0	2.8
B14A x B45	46.8	13.2	90	0.0	7.4	0.0	2.5
B37 x C103	46.7	13.9	88	0.0	1.9	1.9	3.0
B45 x N6G	46.4	15.0	85	0.0	11.8	0.0	2.5
H55 x WF9	46.3	12.5	97	0.0	6.9	1.7	2.8
H55 x C103	46.1	15.8	85	0.0	3.9	0.0	2.8
B14A x C103	45.8	14.2	88	0.0	11.3	1.9	2.5
N6G x Oh7N	43.2	14.6	93	0.0	8.9	0.0	2.0
B14A x WF9	42.1	11.0	87	0.0	3.8	0.0	2.8
WF9 x Oh7N	41.0	12.3	92	0.0	16.4	0.0	2.5
B37 x N6G	39.8	14.0	92	0.0	10.9	0.0	2.3
Oh7N x Oh45B	39.3	13.3	73	0.0	18.2	0.0	2.5
B37 x WF9	38.7	11.6	90	0.0	5.6	0.0	2.5
B14A x B37	38.0	12.3	85	0.0	5.9	0.0	2.5
Oh7N x C103	35.9	14.8	88	0.0	1.9	0.0	2.3
WF9 x C103	34.8	12.8	95	0.0	7.0	0.0	2.5
N6G x Oh45B	34.7	14.4	93	0.0	16.1	0.0	2.0
WF9 x Oh45B	32.3	11.8	93	0.0	17.9	0.0	2.5
B14A x N6G	32.0	13.7	92	0.0	5.5	0.0	2.0
AES 702	31.7	13.3	78	0.0	10.6	0.0	2.3
US13 (WF9x38-11)(L317xHy)	30.2	11.7	83	0.0	0.0	0.0	2.8
AES 704	30.1	11.9	85	0.0	3.9	0.0	2.5
C103 x Oh45B	29.5	14.2	98	0.0	6.8	0.0	3.0
WF9 x N6G	28.6	12.0	87	0.0	7.7	0.0	2.3
N6G x C103	20.2	14.0	93	0.0	3.6	0.0	2.3
Mean	47.5	14.2	90	0.0	7.6	0.2	2.6

Table 19. Summary of performance records for the cooperative uniform yield trials of midseason yellow single crosses (700-800 Maturity Series). Tested near Columbia and Mt. Vernon, Missouri (Expts. 26 and 27).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
B14A X H55	72.4	14.3	91	0.0	10.4	1.7	3.3
B14A X B37	67.5	13.1	93	0.0	3.0	0.0	2.8
B14A X WF9	70.1	12.1	94	0.0	2.8	0.0	2.8
B14A X N28	72.1	15.2	97	0.0	1.7	0.9	2.7
B14A X B45	64.3	13.4	93	0.0	13.4	0.0	2.7
B14A X N6G	69.6	14.2	96	0.0	16.1	1.7	2.4
B14A X OH7N	76.3	12.9	97	0.0	11.1	1.7	2.9
B14A X C103	74.7	14.9	93	0.0	5.7	2.7	2.7
B14A X OH45B	77.0	15.7	98	0.0	8.6	0.0	2.9
H55 X B37	82.4	15.8	93	0.0	16.3	0.9	3.5
H55 X WF9	73.2	13.8	99	0.0	14.3	0.9	3.2
H55 X N28	92.8	18.2	95	0.0	5.3	0.0	3.2
H55 X B45	81.4	15.0	95	0.0	23.2	0.9	3.0
H55 X N6G	83.1	16.5	96	10.2	31.6	0.9	3.3
H55 X OH7N	79.8	15.4	97	7.5	21.3	0.0	3.2
H55 X C103	83.6	17.9	92	0.0	7.1	2.6	3.1
H55 X OH45B	78.4	18.0	94	5.1	20.6	0.9	3.4
B37 X WF9	65.6	14.0	94	0.0	3.7	0.0	2.8
B37 X N28	79.0	19.6	99	0.0	1.7	0.9	2.9
B37 X B45	76.2	15.0	98	0.0	2.5	0.0	2.9
B37 X N6G	69.9	16.9	95	2.6	7.2	1.7	2.7
B37 X OH7N	82.0	15.9	93	0.0	16.4	0.9	2.7
B37 X C103	81.7	16.1	95	0.0	1.0	1.8	3.0
B37 X OH45B	82.4	16.9	96	0.0	7.0	0.0	2.8
WF9 X N28	79.0	16.8	98	0.0	8.6	0.0	2.5
WF9 X B45	76.5	14.0	98	0.0	4.3	0.9	2.6
WF9 X N6G	63.9	13.3	93	0.0	6.4	0.0	2.6
WF9 X OH7N	69.2	13.6	94	0.0	14.4	0.0	2.8
WF9 X C103	60.3	13.6	98	4.2	4.4	0.9	2.7
WF9 X OH45B	61.8	13.5	91	0.0	9.0	1.0	2.7
N28 X B45	75.2	17.1	93	0.0	11.8	0.0	2.7
N28 X N6G	75.6	19.3	94	0.0	7.3	0.0	2.6
N28 X OH7N	71.5	15.9	96	0.0	9.3	0.0	2.5
N28 X C103	101.7	18.1	93	0.0	6.4	1.7	2.7
N28 X OH45B	82.2	21.3	94	0.0	9.2	0.0	2.9
B45 X N6G	82.2	16.5	93	0.0	20.1	0.0	2.9
B45 X OH7N	84.7	15.7	95	0.0	27.1	0.9	2.9
B45 X C103	89.4	15.7	87	0.0	10.3	1.7	2.8
B45 X OH45B	81.5	16.3	97	2.7	29.7	0.0	2.9
N6G X OH7N	75.0	17.0	95	0.0	15.7	0.9	2.7
N6G X C103	61.3	17.8	97	0.0	3.5	2.5	2.7
N6G X OH45B	62.4	15.9	94	2.7	14.2	0.0	2.3
OH7N X C103	70.6	16.6	94	0.9	6.0	2.5	2.6
OH7N X OH45B	69.5	16.7	86	0.0	28.6	0.9	2.9
C103 X OH45B	65.7	17.1	98	0.0	5.1	0.9	2.9
AES 702	65.5	14.6	89	0.0	11.2	1.7	2.7
AES 704	65.2	13.8	91	0.0	6.3	0.0	2.8
US 13 WF9X38-11 L317XHy	57.6	13.0	92	0.0	8.4	0.0	3.1
Mean	74.6	15.7	94	0.7	11.0	0.8	2.8

Table 20. 1966 average performance and 2-year grand means for parental inbred lines obtained from all possible single crosses among them (700-800 maturity series). Expts. 26 and 27.

Inbred parent	Location		Mean	2-year grand mean
	Bradford Farm Exp. 26	Southwest Center Exp. 27		
	<u>Acre yield bushels</u>			
B14A	97.4	45.6	71.5	87.9
H55	105.7	55.9	80.8	98.0
B37	100.7	51.8	76.3	94.1
WF9	97.2	40.4	68.8	87.6
N28	102.5	59.4	80.9	98.1
B45	102.4	55.6	79.0	100.4
N6G	103.6	39.2	71.4	94.9
Oh7N	102.3	48.5	75.4	91.0
C103	110.4	42.6	76.5	90.6
Oh45B	100.2	46.6	73.4	91.0
	<u>% Root lodging</u>			
B14A	0.0	0.0	0.0	0.8
H55	5.1	0.0	2.6	3.3
B37	0.6	0.0	0.3	3.0
WF9	0.9	0.0	0.5	3.2
N28	0.0	0.0	0.0	0.2
B45	0.6	0.0	0.3	6.7
N6G	3.4	0.0	1.7	6.1
Oh7N	1.9	0.0	1.0	3.5
C103	1.1	0.0	0.6	2.4
Oh45B	2.3	0.0	1.2	4.0
	<u>% Stalk lodging</u>			
B14A	10.8	5.3	8.0	8.0
H55	26.1	7.2	16.6	16.8
B37	7.1	5.9	6.5	6.1
WF9	6.0	9.0	7.5	6.8
N28	6.3	7.3	8.3	9.4
B45	24.5	7.1	15.8	15.4
N6G	17.7	9.4	13.5	11.3
Oh7N	23.6	9.7	16.6	15.2
C103	5.8	5.1	5.4	5.1
Oh45B	17.8	11.5	14.6	11.7
	<u>Ear height grade</u>			
B14A	3.0	2.6	2.8	3.2
H55	3.6	2.8	3.2	3.6
B37	3.1	2.7	2.9	3.2
WF9	2.9	2.5	2.7	3.0
N28	2.9	2.6	2.7	3.0
B45	3.1	2.6	2.8	3.2
N6G	3.0	2.3	2.6	3.1
Oh7N	3.1	2.5	2.8	3.1
C103	3.0	2.6	2.8	3.1
Oh45B	3.0	2.7	2.8	3.2

Three-Way Crosses

(400-600 Maturity Series)

A group of 27 medium early three-way crosses tested at Bradford Farm near Columbia, Mo., is presented in Table 21.

Table 21. 1966 performance record for the cooperative uniform yield trial of medium early three-way crosses (400-600 Maturity Series). Tested at Bradford Farm near Columbia, Missouri. Planted May 17, 1966. Harvested November 14, 1966 (Exp. 28).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
WF9 X OH43	104.3	13.7	97	0.0	8.6	3.4	2.0
AES 704	97.9	15.9	97	0.0	10.3	4.3	2.3
A239XR181B X E43-5-13	97.1	14.2	100	0.0	8.3	11.7	2.5
WF9XOH43 X A646	94.7	15.1	98	0.0	6.8	4.2	2.4
WF9XOH43 X A643	92.9	15.0	98	0.0	25.6	5.1	2.1
A239XR181B X A646	92.7	14.1	99	0.8	12.6	0.8	2.5
WF9XOH43 X SYN B-06618-17	92.1	15.0	100	0.0	9.2	0.8	2.3
WF9XOH43 X H89	92.1	15.6	99	0.0	10.1	5.0	2.3
WF9XOH43 X SYN B-066159-13	89.8	14.1	98	0.0	16.2	6.0	2.1
WF9XOH43 X MS80	89.7	14.7	99	7.6	21.8	7.6	2.4
A239XR181B X MS215	88.5	14.1	93	2.7	18.8	2.7	2.6
A239XR181B X A643	84.9	14.7	90	0.0	25.0	3.7	2.5
A239XR181B X MS57	84.9	13.7	98	0.0	9.3	16.1	2.3
OHIO K24	84.1	13.7	98	0.0	17.9	1.7	2.5
A239XR181B X MS100	83.5	14.2	99	5.0	17.6	4.2	2.6
A239XR181B X H89	82.1	14.4	99	0.0	18.5	8.4	2.6
WF9XOH43 X MS142	81.6	14.4	93	0.0	17.1	6.3	2.3
WF9XOH43 X PA65-1	81.0	14.5	98	16.1	33.1	0.8	2.3
WF9XOH43 X MS57	80.2	14.2	93	0.0	7.1	3.6	2.4
A239XR181B X MS80	80.1	14.1	94	2.7	15.0	9.7	2.6
A239XR181B X MICH65-1	79.3	14.1	99	0.0	21.8	5.9	2.4
A239XR181B X SYN B-06618-17	79.3	13.5	98	0.0	25.6	0.0	2.5
WF9XOH43 X MS215	78.7	15.3	88	1.0	17.1	2.9	2.1
A239XR181B SYN B-066159-13	77.9	13.7	99	0.0	37.8	3.4	2.8
WF9XOH43 X MS100	77.8	14.0	95	0.9	15.8	0.9	2.1
WF9XOH43 X MICH65-1	77.2	15.0	96	13.9	14.8	1.7	2.1
WF9XOH43 X A648	75.2	14.3	100	0.0	10.8	0.8	2.3
OHIO M15	71.9	14.4	98	29.1	43.6	8.5	2.6
A239XR181B X A648	65.7	13.9	95	0.0	28.9	0.9	2.6
A239XR181B X PA65-2	65.5	15.2	86	1.9	32.0	11.7	2.5
WF9XOH43 X PA65-2	65.0	14.2	89	22.4	42.1	4.7	2.1
A239 X R181	63.8	13.9	72	0.0	15.1	3.5	2.5
MEAN	82.9	14.4	95	3.3	19.2	4.7	2.4

Differences in yield between any two hybrids of less than 10.3 bushels are not considered significant.

Midseason White Single Crosses

(800 Maturity Series)

Performance records for 44 of the possible 45 single crosses among 10 inbred lines are given in Tables 22 and 23 from experiments grown near Columbia, Mo. The mean performance record for the two locations is given in Table 24. The average performance for the parental inbreds as measured by the performance of their single-cross progenies is given in Table 25. The performance for a group of selected double crosses predicted from the single-cross data for each of the locations is listed in Tables 26 and 27. The predicted double crosses listed are those having high yield, lowest root lodging and stalk lodging and with low ear placement.

<i>Inbred</i>	<i>Parentage</i>
C164	Pride of Saline
Ky225	N.C. Ia. D.D.D. x Coah. 8
Ky201	White Pearl
33-16	Johnson Co. White
Mo14W	Mo22 x WF9
T315	T111 x (RB. L x III.A)
Mo63: 2179W	N6 x Mo22
Mo1W	Mo22 x WF9 ²
C1127	Ky27 x L97
Ky228	Pride of Saline

Table 22. 1966 performance record for midseason white single crosses of 10 inbreds (800 Maturity Series). Tested at Rollins Field near Columbia, Missouri. Planted June 11, 1966. Harvested November 11, 1966 (Exp. 16).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED PLANTS ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
33-16 X CI64	115.5	21.9	99	0.0	36.1	3.4	4.4
CI64 X MO1W	113.2	23.2	96	0.0	9.6	0.9	4.4
KY225 X MO1W	110.5	18.7	96	0.0	29.6	2.6	4.1
CI64 X KY225	109.6	27.3	96	0.0	10.4	0.9	4.9
CI64 X KY201	109.2	21.5	95	0.0	4.4	0.0	3.9
33-16 X KY225	104.8	17.0	98	0.0	26.3	3.4	4.5
KY 5921W	101.6	22.0	95	0.0	16.7	2.6	4.1
MO 476W 33-16XH28 K55XK6	100.2	20.1	99	0.0	22.7	0.8	4.4
33-16 X KY228	99.1	23.3	99	0.0	11.8	2.5	3.8
KY225 X CI127	98.9	20.8	93	0.0	40.2	6.3	4.6
KY216 X CI66	97.5	29.9	93	0.0	1.8	0.9	4.5
33-16 X MO14W	96.9	22.8	90	0.0	1.9	2.8	4.3
CI64 X MO14W	96.9	26.9	99	0.0	1.7	0.8	4.6
33-16 X CI127	94.6	20.4	86	0.0	20.4	10.7	4.4
CI127 X MO1W	94.2	21.4	86	0.0	24.3	2.9	4.1
KY225 X MO632179W	91.7	22.3	100	0.0	20.8	0.8	4.0
KY201 X CI127	91.7	22.2	90	0.0	20.4	8.3	4.3
KY225 X KY201	91.4	23.1	92	0.0	27.3	3.6	4.1
33-16 X KY201	90.9	19.3	98	0.0	28.8	2.5	3.9
33-16 X MO632179W	90.2	21.4	98	0.0	17.1	1.7	3.9
33-16 X MO1W	90.1	20.9	96	0.0	16.5	7.0	3.6
KY228 X CI64	89.8	32.0	98	0.0	6.0	0.0	4.0
CI64 X MO632179W	89.6	27.8	93	0.0	8.9	0.0	3.9
CI64 X CI127	89.3	23.7	98	0.0	44.9	4.2	4.5
CI64 X T315	88.9	29.3	95	0.0	5.3	0.0	4.1
KY201 X MO1W	87.3	20.1	93	0.0	9.8	0.9	3.5
33-16 X T315	85.6	22.8	93	0.0	8.9	1.8	3.8
KY225 X T315	84.8	19.6	93	0.0	13.5	0.9	4.4
KY228 X KY225	84.3	25.5	97	0.0	4.3	0.0	3.9
T315 X CT127	84.1	22.0	83	0.0	14.0	3.0	4.4
KY228 X T315	84.0	22.3	91	0.0	2.8	0.0	3.5
KY228 X CI127	83.8	23.6	88	0.0	14.3	1.9	4.3
KY228 X MO1W	83.5	22.3	96	0.0	11.3	0.9	3.3
CI127 X MO632179W	83.5	26.8	90	0.0	22.2	0.9	4.1
T315 X MO14W	82.5	25.3	87	0.0	6.7	1.0	4.1
KY201 X MO632179W	81.7	29.7	89	0.0	2.8	1.9	3.6
MO1W X MO632179W*	80.1	25.5	90	0.0	7.4	1.9	3.5
KY228 X MO632179W	79.9	28.3	95	0.0	4.4	0.0	3.5
MO14W X CI127	78.9	26.8	98	0.0	3.4	5.1	4.8
T315 X MO632179W	78.8	30.4	88	0.0	6.7	0.0	3.9
KY228 X KY201	78.2	26.3	98	0.0	0.9	0.0	3.5
KY225 X MO14W	77.1	31.1	90	0.0	7.4	0.0	4.5
T315 X MO1W	76.6	22.8	95	0.0	7.9	3.5	3.6
T315 X KY201	76.3	25.8	97	0.0	5.2	3.4	3.6
MO14W X MO632179W*	76.1	29.3	96	0.0	7.0	1.7	3.8
KY228 X MO14W	73.8	28.7	98	0.0	0.8	0.8	3.6
MO14W X MO1W*	58.5	26.3	80	0.0	7.3	6.3	3.5
MEAN	89.5	24.3	94	0.0	13.3	2.2	4.0

Differences in yield between any two hybrids of less than 8.9 bushels are not considered significant.

* Related

Table 23. 1966 performance record for midseason white single crosses of 10 inbreds (800 Maturity Series).
 Tested at Bradford Farm near Columbia, Missouri. Planted May 25, 1966. Harvested November
 16, 1966 (Exp. 17).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
KY216 X CI66	118.5	20.6	97	0.9	10.3	0.9	3.3
CI64 X KY225	116.4	19.9	93	5.4	24.3	2.7	4.0
KY225 X KY201	115.8	16.9	98	0.0	21.2	4.2	3.8
33-16 X MO14W	114.5	18.0	97	10.3	6.0	5.2	3.4
CI64 X MO14W	114.4	21.4	98	9.3	6.8	0.8	3.9
CI64 X KY201	113.6	16.5	98	4.3	13.7	0.9	3.3
T315 X MO14W	113.6	21.2	97	0.9	6.9	0.0	3.3
KY201 X MO632179W	112.5	19.1	99	3.4	5.9	0.8	3.1
KY225 X MO1W	111.9	16.8	96	0.9	13.9	0.9	3.5
CI64 X T315	111.6	20.9	99	2.5	6.7	0.8	3.5
KY225 X T315	111.3	18.3	91	0.9	9.2	0.9	3.5
KY201 X CI127	110.6	17.5	99	7.6	14.3	12.6	3.3
33-16 X KY225	110.4	16.9	87	8.7	12.5	6.7	3.6
CI127 X MO632179W	109.6	20.3	99	18.5	13.4	0.8	3.5
KY228 X CI64	108.5	19.1	91	54.1	14.7	0.0	3.3
KY225 X MO14W	108.0	19.6	97	0.0	7.8	0.9	3.6
33-16 X T315	106.7	17.3	97	7.8	10.3	2.6	3.4
MO14W X MO632179W*	106.3	20.8	98	0.0	5.9	0.8	3.3
33-16 X MO632179W	106.0	19.8	96	0.0	4.3	6.1	3.3
CI64 X CI127	104.2	19.9	94	45.1	36.3	2.7	3.9
MO14W X CI127	103.6	20.2	94	16.8	10.6	6.2	3.6
KY228 X KY225	103.5	16.6	93	5.4	13.4	0.0	3.4
MO 476W 33-16XH28 K55XK6	103.5	17.4	98	20.5	27.4	2.6	3.4
33-16 X KY228	103.3	17.3	97	49.1	16.4	0.0	3.1
CI64 X MO632179W	103.0	20.4	96	39.1	5.2	0.9	3.1
33-16 X CI64	102.8	17.7	96	60.0	18.3	3.5	3.3
KY225 X CI127	102.5	16.9	98	5.1	39.8	12.7	3.8
KY 5921W	100.9	16.7	98	6.8	13.6	0.0	3.5
KY228 X MO14W	100.7	21.9	98	0.8	2.5	1.7	3.3
T315 X MO632179W	100.2	23.0	99	0.0	5.9	0.0	3.4
T315 X CI127	99.6	17.3	83	1.0	19.0	6.0	3.9
T315 X KY201	98.3	19.8	87	0.0	9.6	1.0	3.3
KY225 X MO632179W	98.0	21.5	96	0.0	11.3	0.0	3.3
KY201 X MO1W	96.8	15.9	97	11.2	6.9	0.0	2.9
KY228 X CI127	96.2	17.6	97	15.5	15.5	1.7	3.3
KY228 X KY201	95.8	19.2	95	0.0	2.6	0.0	3.0
33-16 X KY201	95.5	16.6	101	0.0	13.2	8.3	3.4
T315 X MO1W	95.3	18.5	97	2.6	6.0	0.9	3.1
33-16 X CI127	94.6	16.7	91	50.5	12.8	16.5	3.6
KY228 X MO1W	94.0	17.3	93	18.8	11.6	0.0	2.5
KY228 X T315	93.7	20.2	95	7.0	5.3	0.0	2.8
33-16 X MO1W	92.9	15.3	94	31.9	3.5	4.4	3.0
CI127 X MO1W	92.6	16.5	100	46.7	15.0	7.5	3.4
KY228 X MO632179W	91.6	25.2	96	13.0	5.2	0.0	3.1
CI64 X MO1W	90.9	16.3	93	53.6	8.9	5.4	3.5
MO1W X MO632179W*	90.2	18.8	97	13.8	10.3	0.9	2.5
MO14W X MO1W*	81.5	17.9	98	3.4	13.6	5.9	3.1
MEAN	103.1	18.7	96	13.9	12.0	2.9	3.5

Differences in yield between any two hybrids of less than 9.3 bushels are not considered significant.

* Related

Table 24. Summary of performance records for midseason white single crosses of 10 inbreds (800 Maturity Series). Tested at Rollins Field and Bradford Farm near Columbia, Missouri (Expts. 16 and 17).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
33-16 X KY228	101.2	20.3	98	24.6	14.1	1.3	3.5
33-16 X CI64	109.2	19.8	98	30.0	27.2	3.5	3.9
33-16 X KY225	107.6	17.0	93	4.4	19.4	5.1	4.1
33-16 X T315	96.2	20.1	95	3.9	9.6	2.2	3.6
33-16 X KY201	93.2	18.0	100	0.0	21.0	5.4	3.7
33-16 X M014W	105.7	20.4	94	5.2	4.0	4.0	3.9
33-16 X CI127	94.6	18.6	89	25.3	16.6	13.6	4.0
33-16 X M01W	91.5	18.1	95	16.0	10.0	5.7	3.3
33-16 X M0632179W	98.1	20.6	97	0.0	10.7	3.9	3.6
KY228 X CI64	99.2	25.6	95	27.1	10.4	0.0	3.7
KY228 X KY225	93.9	21.1	95	2.7	8.9	0.0	3.7
KY228 X T315	88.9	21.3	93	3.5	4.1	0.0	3.2
KY228 X KY201	87.0	22.8	97	0.0	1.8	0.0	3.3
KY228 X M014W	87.3	25.3	98	0.4	1.7	1.3	3.5
KY228 X CI127	90.0	20.6	93	7.8	14.9	1.8	3.8
KY228 X M01W	88.8	19.8	95	9.4	11.5	0.5	2.9
KY228 X M0632179W	85.8	26.8	96	6.5	4.8	0.0	3.3
CI64 X KY225	113.0	23.6	95	2.7	17.4	1.8	4.5
CI64 X T315	100.3	25.1	97	1.3	6.0	0.4	3.8
CI64 X KY201	111.4	19.0	97	2.2	9.1	0.5	3.6
CI64 X M014W	105.7	24.2	99	4.7	4.3	0.8	4.3
CI64 X CI127	96.8	21.8	96	22.6	40.6	3.5	4.2
CI64 X M01W	102.1	19.8	95	26.8	9.3	3.2	4.0
CI64 X M0632179W	96.3	24.1	95	19.6	7.1	0.5	3.5
KY225 X T315	98.1	19.0	92	0.5	11.4	0.9	4.0
KY225 X KY201	103.6	20.0	95	0.0	24.3	3.9	4.0
KY225 X M014W	92.6	25.4	94	0.0	7.6	0.5	4.1
KY225 X CI127	100.7	18.9	96	2.6	40.0	9.5	4.2
KY225 X M01W	111.2	17.8	96	0.5	21.8	1.8	3.8
KY225 X M0632179W	94.9	21.9	98	0.0	16.1	0.4	3.7
T315 X KY201	87.3	22.8	92	0.0	7.4	2.2	3.5
T315 X M014W	98.1	23.3	92	0.5	6.8	0.5	3.7
T315 X CI127	91.9	19.7	83	0.5	16.5	4.5	4.2
T315 X M01W	86.0	20.7	96	1.3	7.0	2.2	3.4
T315 X M0632179W	89.5	26.7	94	0.0	6.3	0.0	3.7
KY201 X CI127	101.2	19.9	95	3.8	17.4	10.5	3.8
KY201 X M01W	92.1	18.0	95	5.6	8.4	0.5	3.2
KY201 X M0632179W	97.1	24.4	94	1.7	4.4	1.4	3.4
M014W X CI127	91.3	23.5	96	8.4	7.0	5.7	4.2
M014W X M01W*	70.0	22.1	89	1.7	10.5	6.1	3.3
M014W X M0632179W*	91.2	25.1	97	0.0	6.5	1.3	3.6
CI127 X M01W	93.4	19.0	93	23.4	19.7	5.2	3.8
CI127 X M0632179W	96.6	23.6	95	9.3	17.8	0.9	3.8
M01W X M0632179W*	85.2	22.2	94	6.9	8.9	1.4	3.0
KY 5921W	101.3	19.4	97	3.4	15.2	1.3	3.8
KY216 X CI66	108.0	25.3	95	0.5	6.1	0.9	3.9
MO 476W 33-16XH28 K55XK6	101.9	18.8	99	10.3	25.1	1.7	3.9
MEAN	96.3	21.5	95	7.0	12.7	2.6	3.7

* Related

Table 25. 1966 summary of average performance for parental inbred lines obtained from all possible single crosses among them (800 Maturity Series). Expts. 16 and 17.

Inbred Parent	Location		Mean
	Rollins Field Exp. 16	Bradford Farm Columbia Exp. 17	
	<u>Acre Yield Bushels</u>		
33-16	96.4	103.0	99.7
Ky228	84.0	98.6	91.3
CI64	100.2	107.3	103.8
Ky225	94.8	108.6	101.7
T315	82.4	103.4	92.9
Ky201	87.7	103.9	95.8
Mo14W	80.4	104.4	92.4
CI127	88.8	101.5	95.2
Mo1W	88.2	94.0	91.1
Mo632179W	83.5	101.9	92.7
	<u>% Moisture in Grain</u>		
33-16	21.1	17.3	19.2
Ky228	25.8	19.4	22.6
CI64	26.0	19.1	22.6
Ky225	22.8	18.2	20.5
T315	24.5	19.6	22.1
Ky201	23.3	17.5	20.4
Mo14W	26.6	19.7	23.2
CI127	23.1	18.1	20.6
Mo1W	22.4	17.0	19.7
Mo632179W	26.8	21.0	23.9
	<u>% Root Lodged</u>		
33-16	31.2	0.0	15.6
Ky228	20.5	0.0	10.3
CI64	30.4	0.0	15.2
Ky225	4.4	0.0	2.2
T315	3.2	0.0	1.6
Ky201	6.3	0.0	3.2
Mo14W	6.7	0.0	3.4
CI127	23.0	0.0	11.5
Mo1W	20.3	0.0	10.2
Mo632179W	17.6	0.0	8.8
	<u>% Stalk Lodging</u>		
33-16	18.6	10.8	14.7
Ky228	6.3	9.7	8.0
CI64	14.1	15.0	14.6
Ky225	20.0	17.0	18.5
T315	7.9	8.8	8.4
Ky201	11.8	10.5	11.2
Mo14W	4.7	7.5	6.1
CI127	22.7	19.6	21.2
Mo1W	13.7	10.0	11.9
Mo632179W	10.8	7.5	9.2
	<u>Ear Height Grade</u>		
33-16	4.1	3.3	3.7
Ky228	3.7	3.1	3.4
CI64	4.3	3.5	3.9
Ky225	4.3	3.6	4.0
T315	3.9	3.4	3.7
Ky201	3.7	3.2	3.5
Mo14W	4.1	3.4	3.8
CI127	4.4	3.6	4.0
Mo1W	3.7	3.1	3.4
Mo632179W	3.8	3.2	3.5

Table 26. Predicted performances for 40 selected white double crosses based on high yield and low lodging. Predictions made from the single-cross data presented in Table 22 . Experiment 16 grown at Rollins Field near Columbia Missouri in 1966.

Pedigree	Yield	% Moisture	% Lodging	Ear Height
(33-16 x CI64)(Mol4W x MolW)	99.3	23.4	7.4	4.2
(Ky228 x CI64)(Ky201 x MolW)	96.0	23.3	6.5	3.8
(CI64 x Mo63:2179W)(Ky201 x MolW)	96.0	25.0	6.0	3.8
(33-16 x CI64)(Ky228 x Mol4W)	95.7	26.2	5.3	4.2
(Ky228 x CI64)(Ky225 x Ky201)	95.3	25.1	5.0	4.0
(CI64 x T315)(Ky225 x Ky201)	95.0	23.5	8.4	4.2
(CI64 x CI127)(Ky201 x Mol4W)	94.2	24.3	7.5	4.4
(CI64 x T315)(Ky201 x MolW)	93.8	23.3	6.8	3.9
(33-16 x CI64)(Mol4W x Mo63:2179W)	93.4	24.7	7.4	4.2
(CI64 x T315)(Ky225 x Mol4W)	93.4	24.8	8.1	4.5
(CI64 x Ky201)(MolW x Mo63:2179W)	92.9	25.2	7.8	3.8
(Ky228 x CI64)(T315 x MolW)	92.4	24.3	7.2	3.8
(Ky228 x Ky201)(CI64 x MolW)	92.4	24.0	7.9	3.7
(CI64 x T315)(Mol4W x MolW)	92.3	24.5	6.5	4.2
(33-16 x CI64)(T315 x Mol4W)	92.1	25.4	4.4	4.2
(Ky228 x MolW)(CI64 x Ky201)	92.1	25.4	6.6	3.8
(Ky228 x Ky225)(CI64 x T315)	92.0	25.3	8.2	4.2
(Ky228 x CI64)(Mol4W x MolW)	91.8	25.3	5.8	4.0
(Ky228 x CI64)(Ky225 x T315)	91.7	26.1	5.7	4.1
(CI64 x Mo63:2179W)(Mol4W x MolW)	91.6	26.2	6.4	4.1
(CI64 x MolW)(Ky201 x Mo63:2179W)	91.5	23.7	7.6	3.7
(CI64 x Ky201)(T315 x MolW)	91.4	24.6	7.5	3.9
(CI64 x T315)(Ky201 x Mol4W)	91.2	24.9	4.5	4.0
(Ky228 x CI64)(Ky225 x Mol4W)	91.1	27.1	4.3	4.2
(CI64 x Mo63:2179W)(Ky201 x Mol4W)	91.0	26.8	4.0	4.0
(Ky228 x MolW)(CI64 x T315)	90.9	25.1	6.6	3.9
(33-16 x CI64)(Ky228 x T315)	90.8	26.8	8.0	3.9
(Ky228 x CI64)(Ky225 x Mo63:2179W)	90.8	27.2	7.0	4.0
(Ky228 x MolW)(CI64 x Mo63:2179W)	90.7	27.2	6.8	3.8
(33-16 x T315)(Ky228 x Mol4W)	90.6	23.4	5.8	3.9
(CI64 x MolW)(T315 x Ky201)	90.5	23.4	6.8	3.8
(CI64 x Mo63:2179W)(T315 x MolW)	90.2	27.1	7.2	4.0
(Ky228 x CI64)(T315 x Ky201)	90.1	24.8	3.3	3.7
(Ky228 x Ky201)(CI64 x Mo63:2179W)	90.1	27.9	4.4	3.7
(Ky228 x Ky201)(CI64 x T315)	89.8	25.4	4.6	3.7
(33-16 x CI127)(Ky228 x Mol4W)	89.7	24.1	7.8	4.3
(CI64 x Mo63:2179W)(T315 x Ky201)	89.6	27.7	4.8	3.9
(Ky228 x CI64)(Ky201 x Mol4W)	89.5	25.8	1.9	3.9
(CI64 x Mol4W)(Ky225 x T315)	89.5	28.2	7.4	4.4
(33-16 x Ky225)(Ky228 x Mol4W)	89.3	25.7	6.3	4.1

Table 27. Predicted performances for 37 selected white double crosses based on high yield and low root and stalk lodging. Predictions made from the single-cross data presented in Table 23 . Experiment 17 grown Bradford Farm near Columbia, Missouri in 1966.

Pedigree	Yield	% Moisture	Root Lodging	Stalk Lodging	Ear Height
(33-16 x T315)(Ky225 x Mo14W)	112.4	18.6	5.2	8.6	3.4
(CI64 x Mo63:2179W)(Ky201 x Mo14W)	111.7	19.4	4.3	8.1	3.4
(CI64 x Ky225)(T315 x Mo14W)	111.3	20.0	3.2	7.6	3.6
(33-16 x Ky225)(T315 x Mo14W)	110.1	18.3	4.8	8.3	3.5
(CI64 x T315)(Ky201 x Mo14W)	110.0	19.7	3.6	9.2	3.4
(33-16 x Mo14W)(Ky225 x T315)	109.7	18.7	4.4	9.4	3.5
(CI64 x Mo63:2179W)(T315 x Ky201)	109.5	19.9	2.6	8.0	3.3
(33-16 x T315)(Mo14W x Mo63:2179W)	108.6	20.5	2.8	5.8	3.3
(33-16 x Mo14W)(T315 x Mo63:2179W)	108.1	19.8	2.2	6.8	3.3
(CI64 x Mo63:2179W)(T315 x Mo14W)	108.1	21.5	3.0	6.3	3.5
(33-16 x Mo14W)(Ky225 x Mo63:2179W)	107.7	19.3	2.2	7.6	3.4
(T315 x Mo63:2179W)(Ky201 x Mo14W)	107.7	20.2	1.1	7.1	3.2
(33-16 x Ky228)(Ky225 x Mo14W)	107.3	18.3	6.3	8.6	3.4
(33-16 x Mo63:2179W)(Ky225 x Mo14W)	107.3	19.3	4.8	8.9	3.4
(Ky228 x T315)(Ky225 x Mo14W)	107.3	19.5	2.0	8.0	3.4
(Ky225 x Mo14W)(T315 x Mo63:2179W)	107.3	20.4	0.5	8.3	3.3
(33-16 x Mo63:2179W)(Ky201 x Mo14W)	107.2	18.6	3.5	7.7	3.3
(Ky225 x T315)(Mo14W x Mo1W)	107.2	19.0	1.1	8.6	3.4
(33-16 x T315)(Ky225 x Mo63:2179W)	107.0	19.5	2.4	8.0	3.4
(33-16 x Mo63:2179W)(T315 x Mo14W)	106.9	19.8	4.6	7.0	3.4
(33-16 x Ky225)(Mo14W x Mo63:2179W)	106.6	19.7	2.6	7.3	3.4
(Ky225 x Mo63:2179W)(T315 x Mo14W)	106.4	20.4	0.3	7.2	3.4
(Ky228 x CI64)(Ky201 x Mo14W)	106.1	19.7	3.6	6.4	3.4
(33-16 x Ky201)(T315 x Mo63:2179W)	105.9	19.0	2.8	7.5	3.3
(33-16 x Ky225)(T315 x Mo63:2179W)	105.5	19.2	2.2	8.8	3.4
(33-16 x T315)(Ky201 x Mo14W)	105.5	18.9	2.8	8.9	3.3
(Ky228 x CI64)(T315 x Mo14W)	105.1	21.1	4.9	5.3	3.4
(Ky228 x Ky225)(Ky201 x Mo14W)	105.1	19.4	0.3	8.5	3.4
(Ky225 x Ky201)(T315 x Mo63:2179W)	105.0	19.7	1.1	9.0	3.3
(Ky225 x T315)(Mo14W x Mo63:2179W)	104.9	21.3	0.3	8.0	3.4
(Ky228 x Mo14W)(Ky225 x T315)	104.7	19.4	3.3	8.3	3.3
(CI64 x Mo1W)(T315 x Ky201)	104.3	17.9	5.1	8.3	3.2
(Ky228 x Mo63:2179W)(Ky201 x Mo14W)	103.8	20.2	1.1	4.2	3.2
(33-16 x Mo63:2179W)(T315 x Ky201)	103.7	19.0	2.8	8.8	3.3
(Ky228 x CI64)(T315 x Ky201)	103.7	19.2	3.5	7.1	3.1
(Ky228 x Ky225)(Mo14W x Mo1W)	103.6	18.9	5.1	8.9	3.2
(Ky228 x Ky225)(T315 x Mo14W)	103.4	20.0	2.2	6.2	3.3

**Midseason and Late White
Double and Single Crosses**

(800–900 Maturity Series)

Performance of midseason white double- and single-cross hybrids (800 maturity series), tested at West Liberty, Ia., and Columbia, Mo., respectively, is presented in Tables 28 and 29. Late (900 maturity series) white single crosses tested at Bradford Farm near Columbia are presented in Table 30. Period-of-years performance records for midseason and late white doubles are presented in Table 31.

Table 28. 1966 performance record for midseason white hybrids tested near West Liberty, Iowa. Planted May 25, 1966. Harvested November 3, 1966 (Exp. 29). The test was conducted by the Iowa Agricultural Experiment Station, Ames, Iowa.

Hybrid	Pedigree	Acre Yield Bu.	Moisture %	Stand %	Lodged plants		Dropped ears %
					Root %	Stalk %	
Mo64-30W	(Mo1W x H29)(H28 x H31)	111.1	29.6	77.5	0.0	11.2	0.0
Mo64-32W	(H21 x H28)(H31 x 33-16)	106.8	29.9	91.2	0.0	1.3	4.2
MoSX14W	33-16 x Ky201	103.9	28.8	63.7	0.0	0.0	0.0
Mo4079W	(Mo1W x Ky211)(K55 x K6)	102.7	26.9	82.5	0.0	9.5	0.0
Mo64-28W	(H21 x H29)(H28 x H31)	102.1	27.8	81.2	0.0	4.6	0.0
Mo64-29W	(CI127 x K55)(H30 x 33-16)	101.2	27.4	80.0	0.0	9.7	2.6
Mo64-34W	(H30 x H21)(H28 x K55)	99.8	30.1	77.5	0.0	5.4	1.4
Mo4081W	(Mo1W x Ky211)(CI66 x K6)	99.1	31.0	81.2	0.0	9.4	4.4
Mo476W	(33-16 x H28)(K55 x K6)	98.2	30.2	85.0	0.0	3.0	0.0
Ind 501B	(33-16 x H21)(4Co82 x H25)	98.2	26.3	78.7	0.0	16.1	0.0
Mo64-31W	(H21 x H31)(H28 x 33-16)	97.7	28.6	76.2	0.0	11.6	1.6
Mo447W	(K55 x K6)(H28 x K41)	96.2	32.5	65.0	1.6	7.2	2.4
Mo4057BW	(Mo1W x K55)(K41 x H25)	95.9	26.7	83.7	0.0	7.3	6.3
Meachams M-7		95.4	31.7	76.2	0.0	10.9	3.6
Mo478W	(Mo1W x Ky211)(H30 x K41)	94.6	23.8	81.2	0.0	6.1	1.6
AA1846W	(33-16 x Ky211)(CI66 x K55)	94.5	29.0	62.5	0.0	0.0	0.0
Ind 909A	(K64 x K61)(H21 x 33-16)	94.5	30.2	85.0	0.0	5.7	2.9
Mo4080W	(Mo1W x Ky211)(H26 x H27)	92.9	27.6	81.2	0.0	7.7	0.0
Mo64-35W	(H21 x H31)(H28 x H29)	92.7	31.3	92.5	0.0	6.7	2.9
Mo64-37W	(H30 x 33-16)(H21 x K55)	92.3	29.0	91.2	0.0	5.4	5.4
AA1696W	(33-16 x H21)(4Co82 x K41)	90.7	26.3	90.0	0.0	7.0	0.0
Princeton 990A		90.7	33.2	87.5	0.0	7.1	2.9
Mo4073W	(Mo12021W x Mo1W)(H28 x K41)	89.5	30.5	87.5	0.0	6.7	3.3
AA1552W	(33-16 x Ky201)(CI66 x Ky27)	89.3	33.9	78.7	0.0	10.3	0.0
Mo64-36W	(H30 x H21)(K55 x 33-16)	88.6	32.0	87.5	1.6	5.5	0.0
United Hagie SX600W		88.2	34.3	80.0	0.0	1.7	0.0
AA907W	(33-16 x H30M)(CI66 x K55)	85.2	30.7	87.5	2.7	4.2	3.0
Mo64-33W	(H21 x 33-16)(H28 x H31)	85.0	29.7	93.8	0.0	5.3	9.3
Schenks S-96W		85.0	29.0	92.5	0.0	8.1	4.1
MoSX15W	Ky216 x CI66	83.7	35.7	72.5	0.0	8.6	0.0
Princeton 790AA		83.7	30.2	72.5	0.0	8.8	0.0
Mo62-20W	(K41 x 4Co82)(Mo1W x H30)	83.4	20.3	60.0	0.0	2.5	0.0
Mo62-19W	(K41 x 4Co82)(Mo1W x K55)	82.1	24.8	95.0	0.0	6.7	0.0
AA1694W	(33-16 x H21)(A188 x CI66)	80.0	27.6	82.5	0.0	5.1	0.0
US523W	(K55 x K64)(Ky27 x Ky49)	79.6	34.9	85.0	0.0	7.8	0.0
Moews SM650W		79.5	31.9	77.5	0.0	6.5	0.0
Maygold 50W		76.8	35.1	73.7	1.9	5.0	0.0
Meachams MX-50W		75.5	33.8	78.7	0.0	11.2	4.7
AA1848W	(Mo1WxMo14W)(CI66xK55)	74.8	34.1	97.5	0.0	0.0	1.3
Mo62-21W	(K41 x 4Co82)(Mo1W x Ky27)	23.7	22.2	76.2	0.0	4.8	3.3
Mean		89.5	29.7	81.2	0.1	6.5	1.7

CV = 14.9%

Table 29. 1966 performance record for midseason white doubles (800 Maturity Series). Tested at Bradford Farm, near Columbia, Missouri. Planted May 17, 1966. Harvested November 14, 1966 (Exp. 30).

Hybrid	Pedigree	Acre yield bu.	Moisture in grain %	Stand %	Lodged plants		Dropped ears %	Ear height grade
					Root %	Stalk %		
MOSX15W	Ky216xCI66	129.6	19.4	95	0.0	21.1	0.0	3.3
AA1846W	(33-16xKy211)(CI66xK55)	125.7	16.8	95	10.5	14.0	3.5	3.5
AA1848W	(Mo1WxMo14W)(CI66xK55)	116.1	19.0	100	5.0	5.0	0.0	3.3
AA907W	(33-16xH30M)(CI66xK55)	114.1	18.1	83	6.0	22.0	4.0	3.3
AA1552W	(33-16xKy201)(CI66xKy27)	113.5	15.5	75	20.0	20.0	4.4	3.3
Schenks S-96W		111.2	17.9	100	5.0	25.0	5.0	3.3
33-16xKy201		111.0	15.0	93	0.0	14.3	1.8	3.0
US523W	(K55xK64)(Ky27xKy49)	111.0	16.7	93	21.4	30.4	7.1	3.3
Ind.909A	(K64xK61)(H21x33-16)	105.8	16.1	100	20.0	26.7	13.3	3.8
Mo64-32W	(H21xH28)(H31x33-16)	104.2	15.1	95	0.0	22.8	3.5	3.0
Mo4079W	(Mo1WxKy211)(K55xK6)	101.3	15.6	100	18.3	11.7	1.7	2.8
Princeton 990A		101.1	16.3	98	15.3	15.3	3.4	3.0
Mo64-36W	(H30xH21)(K55x33-16)	100.6	16.8	100	0.0	10.0	3.3	3.3
Mo64-28W	(H21xH29)(H28xH31)	99.7	15.4	97	5.2	36.2	10.3	3.3
Mo64-33W	(H21x33-16)(H28xH31)	99.1	14.3	97	5.2	19.0	13.8	3.3
Meachams M7		99.0	17.9	98	15.3	22.0	3.4	3.0
Mo64-35W	(H21xH31)(H28xH29)	98.9	15.5	98	0.0	10.2	10.2	3.0
Mo64-30W	(Mo1WxH29)(H28xH31)	98.0	14.4	100	0.0	11.7	10.0	3.3
Mo64-29W	(CI127xK55)(H30x33-16)	97.5	16.0	95	0.0	26.3	5.3	3.3
AA1694W	(33-16xH21)(A188xCI66)	96.5	16.0	85	0.0	13.7	5.9	2.8
Mo476W	(33-16xH28)(K55xK6)	96.4	19.2	90	0.0	35.2	3.7	3.3
Mo64-31W	(H21xH31)(H28x33-16)	95.3	16.2	93	0.0	28.6	5.4	3.8
Mo64-34W	(H30xH21)(H28xK55)	94.7	17.6	95	0.0	21.1	0.0	3.3
AA1696W	(33-16xH21)(4Co82xK41)	94.1	13.4	87	11.5	25.0	15.4	3.3
Mo4073W	(Mo12021WxMo1W)(H28xK41)	94.1	15.3	98	0.0	25.4	1.7	3.3
Mo478W	(Mo1WxKy211)(H30xK41)	93.9	14.8	100	0.0	11.7	1.7	2.8
United Hagie SX600W		92.9	17.2	100	45.0	13.3	0.0	2.5
Mo4080W	(Mo1WxKy211)(H26xH27)	90.4	17.1	93	25.0	23.2	5.4	3.3
Princeton 790AA		86.8	16.5	95	21.1	29.8	7.0	3.3
Mo64-37W	(H30x33-16)(H21xK55)	85.4	14.7	90	0.0	13.0	7.4	2.8
Mo4057BW	(Mo1WxK55)(K41xH25)	84.4	14.5	97	10.3	22.4	1.7	2.8
Mo447W	(K55xK6)(H28xK41)	82.2	16.2	97	25.9	37.9	5.2	3.8
Mo4081W	(Mo1WxKy211)(CI66xK6)	82.1	15.5	98	35.6	23.7	10.2	3.8
Ind.501B	(33-16xH21)(4Co82xH25)	81.0	13.7	98	0.0	35.6	11.9	3.3
Mo62-19W	(K41x4Co82)(Mo1WxK55)	81.0	14.3	98	0.0	25.4	8.5	2.5
Mo62-20W	(K41x4Co82)(Mo1WxH30)	78.2	14.2	92	5.5	25.5	1.8	3.0
Mo62-21W	(K41x4Co82)(Mo1WxKy27)	76.3	13.9	90	27.8	24.1	3.7	3.0
Moews SM650W		69.2	17.4	97	15.5	25.9	1.7	3.0
Meachams MX-50W		68.4	18.8	93	26.8	33.9	0.0	2.5
Maygold 50W		66.0	18.7	82	53.1	38.8	0.0	2.8
Mean		95.7	16.2	95	11.3	22.4	5.1	3.2

Differences in yield between any two hybrids of less than 8.8 bushels are not considered significant.

Table 30. 1966 performance record for late white single crosses (900 Maturity Series). Tested at Bradford Farm near Columbia, Missouri. Planted May 25, 1966. Harvested November 16, 1966 (Exp. 35).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
CI66 X KY 216	131.1	21.1	98	0.0	6.8	1.7	3.5
CI64 X KY 225	129.5	18.8	95	15.8	31.6	1.8	4.5
33-16 X KY 216	123.2	18.6	97	5.2	24.1	5.2	4.0
KY 201 X KY 225	122.9	16.4	98	0.0	16.9	8.5	3.8
CI66 X CI64	121.7	21.3	95	15.8	19.3	0.0	3.5
CI66 X 33-16	121.4	18.6	98	0.0	15.3	0.0	3.3
CI66 X KY 225	119.7	16.4	90	0.0	7.4	0.0	3.5
KY 226 X KY 228	118.8	17.3	98	0.0	3.4	0.0	3.5
KY 216 X KY 225	118.2	19.5	100	0.0	6.7	0.0	3.5
CI64 X KY 216	117.0	23.5	87	34.6	11.5	0.0	3.8
CI66 X KY 211	116.6	16.4	93	0.0	8.9	1.8	3.8
CI66 X KY 226	116.0	18.8	98	0.0	3.4	0.0	3.5
33-16 X KY 226	115.6	15.6	98	0.0	30.5	0.0	4.3
KY 225 X KY 226	115.1	16.6	93	0.0	21.4	0.0	3.8
CI64 X KY 217	115.0	14.5	93	0.0	12.5	3.6	3.8
CI66 X KY 217	114.9	16.3	92	0.0	12.7	0.0	3.3
KY 201 X KY 216	114.8	17.3	95	0.0	10.5	0.0	3.8
MO 476 W(33-16XH29)(K55XK6)	113.9	16.6	98	0.0	28.8	0.0	3.3
KY 216 X KY 217	113.5	16.4	93	0.0	17.9	0.0	4.0
CI64 X 33-16	113.0	16.1	100	30.0	20.0	3.3	3.8
CI64 X KY 228	112.8	19.8	100	50.0	15.0	0.0	3.5
CI64 X KY 226	112.3	17.5	93	0.0	21.4	0.0	4.0
CI64 X KY 201	112.0	16.2	97	0.0	20.7	3.4	3.5
KY 216 X KY 226	111.5	20.3	95	0.0	7.0	1.8	3.8
KY 211 X KY 225	110.6	13.8	92	0.0	20.0	1.8	3.8
CI64 X KY 211	110.4	18.0	98	20.3	13.6	0.0	3.5
KY 211 X KY 216	109.7	15.2	95	0.0	3.5	1.8	3.5
KY 216 X KY 228	109.7	24.5	92	7.3	7.3	0.0	3.0
KY 217 X KY 228	109.7	16.4	98	0.0	23.7	0.0	3.3
KY 225 X KY 228	109.5	16.6	100	20.0	23.3	0.0	3.8
33-16 X KY 225	108.5	16.2	95	0.0	29.8	0.0	3.8
KY 217 X KY 226	108.5	16.4	98	0.0	28.8	6.8	4.0
US 523WA (CI66XCI64)(KY27XKy49)	108.1	18.9	98	35.6	37.3	5.1	4.0
KY 211 X KY 226	106.6	14.5	92	0.0	12.7	0.0	3.8
KY 211 X KY 228	106.6	16.7	92	5.5	12.7	1.8	3.5
MO 14W X KY 201	106.5	15.5	95	5.3	8.8	1.8	3.0
KY 201 X KY 226	106.2	14.9	98	0.0	10.2	1.7	3.5
KY 217 X KY 225	106.1	13.9	98	0.0	33.9	5.1	3.5
KY 201 X KY 217	104.1	14.0	98	0.0	23.7	6.8	3.5
33-16 X KY 228	103.8	16.4	97	20.7	36.2	0.0	3.8
CI66 X KY 201	100.8	20.9	98	0.0	8.5	0.0	3.0
KY 201 X KY 211	100.6	16.0	97	0.0	8.6	1.7	3.8
33-16 X KY 201	99.2	14.2	92	0.0	34.5	3.6	3.5
KY 201 X KY 228	96.9	18.2	77	0.0	2.2	4.3	3.3
KY 211 X KY 217	94.3	14.3	93	0.0	23.2	12.5	4.0
CI66 X KY 228	90.9	24.5	82	6.1	10.2	0.0	3.0
33-16 X KY 211	86.9	14.2	85	0.0	17.6	7.8	3.8
33-16 X KY 217	86.7	13.9	95	0.0	35.1	8.8	3.8
MEAN	110.4	17.3	95	5.7	17.5	2.1	3.6

Differences in yield between any two hybrids of less than 3.8 bushels are not considered significant.

Table 31. Summary of 2-year (1965-66; 5 tests), 3-year (1964-65-66; 8 tests), 4-year (1963-64-65-66; 11 tests), and 5-year (1962-63-64-65-66; 17 tests) performance records for Midseason (800 maturity series) and Late (900 maturity series) White Double Cross Hybrids.

Hybrid	Pedigree	Acre yield bu.				Stalk lodged plants %				Ear height grade			
		2 yr.	3 yr.	4 yr.	5 yr.	2 yr.	3 yr.	4 yr.	5 yr.	2 yr.	3 yr.	4 yr.	5 yr.
US523W	(K55xK64)(Ky29xKy49)	111.4	110.3	105.6	107.3	28.5	23.1	23.5	20.3	3.4	3.6	3.7	3.8
Mo4057BW	(Mo1WxK55)(K41xH25)	94.0	94.0	94.1	97.4	15.3	10.6	8.7	7.2	2.5	2.9	3.0	3.2
Ind.909A	(K64xK61)(H21x33-16)	107.7	106.9	102.0	104.4	27.3	22.4	20.3	16.9	3.9	4.0	4.0	4.1
Mo4079W	(Mo1WxKy211)(K55xK6)	102.8	102.6	98.8	101.4	10.5	8.1	8.2	6.8	3.1	3.3	3.3	3.4
Mo4080W	(Mo1WxKy211)(H26xH27)	91.8	91.3	88.9	91.3	19.2	14.2	11.7	9.9	3.3	3.4	3.4	3.5
Mo478W	(Mo1WxKy211)(H30xK41)	98.7	100.3	95.8	97.9	12.3	10.4	8.8	7.5	3.1	3.3	3.3	3.4
US523WA	(CI66xCI64)(Ky27xKy49)	110.7	110.9	104.1	107.1	31.6	24.8	22.3	19.3	4.0	4.1	4.0	4.1
Mo4081W	(Mo1WxKy211)(CI66xK6)	95.8	100.5	94.9	100.0	18.9	14.4	11.9	9.6	3.8	3.8	3.7	3.9
Mo4073W	(Mo12021WxMo1W)(H28xK41)	98.9	101.7	100.0	103.1	20.6	15.2	15.1	12.8	3.5	3.7	3.6	3.7
Mo476W	(33-16xH28)(K55xK6)	113.7	108.9	104.2		23.2	17.5	15.3		3.6	3.7	3.7	
Mo62-19W	(K41x4Co82)(Mo1WxK55)	87.7	88.7	88.5		21.8	16.2	14.1		2.9	3.1	3.1	
Mo62-20W	(K41x4Co82)(Mo1WxH30)	83.3	86.2	84.6		24.5	19.1	15.8		3.3	3.4	3.4	
Mo62-21W	(K41x4Co82)(Mo1WxKy27)	83.9	86.9	86.8		24.5	22.5	18.9		3.3	3.5	3.5	
Schenks S96W		108.5	106.1			23.5	19.0			3.4	3.6		
Meachams M7		99.3	97.4			18.1	15.2			3.2	3.4		
Meachams MX-50W		82.6	90.2			25.5	18.2			2.9	3.3		
Princeton 790AA		90.7	89.3			25.7	18.5			3.5	3.7		
Princeton 990A		104.2	103.1			16.2	11.9			3.4	3.6		
Mo64-29W	(CI127xK55)(H30x33-16)	105.0				27.9				3.6			
Mo64-36W	(H30xH21)(K55x33-16)	105.6				13.6				3.5			
Mo64-30W	(Mo1WxH29)(H28xH31)	102.5				10.0				3.4			
Mo64-31W	(H21xH31)(H28x33-16)	100.8				33.8				3.9			
Mo64-35W	(H21xH31)(H28xH29)	101.9				19.2				3.3			
Mo64-33W	(H21x33-16)(H28xH31)	101.9				18.3				3.5			
Mo64-37W	(H30x33-16)(H21xK55)	94.8				16.0				3.2			
Mo64-34W	(H30xH21)(H28xK55)	99.3				21.5				3.5			
Mo64-28W	(H21xH29)(H28xH31)	100.3				29.5				3.4			
Mo64-32W	(H21xH28)(H31x33-16)	101.1				29.7				3.4			
Mean		99.2	98.6	96.0	101.1	21.7	16.7	15.0	12.3	3.4	3.5	3.5	3.7

Midseason and Late Pipe Corn Double Crosses

(800—900 Maturity Series)

Performance records of 40 pipe corn double crosses are presented in Tables 32, 33, 34 and 35 for experiments grown near Golden City, Columbia, Higginsville, and Washington, Mo., respectively. The mean performance record for the four locations is given in Table 36.

Table 32. 1966 performance record for pipe corn double crosses (800-900 Maturity Series). Tested near Golden City, Missouri. Planted May 3, 1966. Harvested October 18, 1966 (Exp. 18).

HYBRID	ACRE	MOISTURE	STAND	LODGED	PLANTS	DROPPED	EAR
	YIELD	IN GRAIN		ROOT	STALK	EARS	HEIGHT
	BU.	%	%	%	%	%	GRADE
CI64XM014W M08WXM09W	147.2	22.4	80	1.7	12.2	0.0	5.0
T204XT208 M08WXM09W	145.0	23.6	85	11.4	15.4	0.0	5.3
E184XC164 M08WXM09W	144.0	23.2	90	20.2	30.2	0.0	4.9
T357XT393 M08WXM09W	143.5	23.1	75	1.9	8.3	0.0	4.5
CI21EXM06 M015WXM016W	142.9	20.4	90	4.6	10.0	0.0	4.9
T204XT208 M015WXM016W	140.4	17.9	78	0.0	7.1	0.9	5.1
T204XT202 M08WXM09W	139.8	23.4	85	0.0	26.8	1.6	5.3
E184XT357 M08WXM09W	139.6	25.8	86	31.5	20.2	0.0	5.0
M08WXM09W CI64XM022	139.5	25.8	81	1.7	19.7	0.9	5.1
B37XT202 M08WXM09W	138.8	22.4	85	2.5	18.0	0.8	4.8
T458XK4 KY36-11 M08WXM09W	135.2	24.6	79	1.8	28.1	0.9	4.9
M015WXM016W M022XC164	134.5	19.7	88	3.1	11.0	2.4	4.5
T202XC121E M015WXM016W	133.9	19.7	90	4.7	12.4	0.0	5.0
M08WXM09W M015WXM016W(Mo Pipe 12)	132.9	20.7	85	11.4	15.4	0.0	4.6
CI21EXM06 M08WXM09W	132.6	26.1	78	3.6	25.9	0.0	4.9
E686XKY36-11 M015WXM016W	132.6	18.1	82	3.4	18.6	0.0	4.3
K10XKY49F ₁ M08WXM09W (Mo Pipe 4)	131.7	19.2	88	18.1	28.3	1.6	4.4
E184XK55 M015WXM016W	130.6	18.5	87	1.6	11.2	0.8	4.4
VA10XC166 M08WXM09W	130.5	24.2	80	8.7	14.8	1.7	5.1
VA10XC166 M015WXM016W	130.2	19.2	89	1.6	7.0	0.8	4.8
K4XB2 M08WXM09W	129.1	19.7	85	11.5	36.9	0.0	4.9
CI64XK55 M015WXM016W	128.4	17.6	81	0.9	17.9	1.7	4.3
E184XK55 M08WXM09W	128.2	25.3	81	18.1	13.8	0.0	4.6
T101XT105 M015WXM016W	128.1	17.9	87	0.0	15.2	0.0	4.9
T101XT105 M08WXM09W	128.0	24.2	83	5.0	16.8	0.8	5.1
E184XC164 M015WXM016W	127.2	18.3	85	10.7	12.3	0.0	4.6
E184XT357 M015WXM016W	126.4	19.4	80	5.2	23.5	0.9	4.6
T204XT202 M015WXM016W	126.2	18.7	88	3.1	27.6	0.8	4.9
M08WXM09W K10XKY49F ₂ (Mo Pipe 4)	123.8	21.6	84	6.6	12.4	0.0	4.1
K4XB2 M015WXM016W	120.9	17.8	86	4.8	20.2	0.8	4.8
B37XT202 M015WXM016W	119.7	18.3	81	2.6	10.3	0.0	4.6
T458XK4 KY36-11 M015WXM016W	117.9	21.2	80	1.7	14.8	0.9	4.5
M09WXM01864 M016WXB37	116.9	17.8	88	0.0	13.4	0.8	4.3
E686XKY36-11 M08WXM09W	114.3	22.4	85	1.6	36.9	0.0	4.5
M015WXM016W K10XKY49F ₂ (Mo Pipe 14)	114.0	16.9	88	4.0	18.3	2.4	4.1
T357XT393 M015WXM016W	113.3	20.5	89	3.9	7.8	1.6	4.4
M08WXM09W K10XKY49F ₂ (Mo Pipe 4)	111.3	20.5	75	0.9	30.6	0.9	4.6
M09WXM01864 M015WXM016W	108.5	19.6	88	1.6	18.9	0.0	4.1
K10XKY49F ₁ M015WXM016W (Mo Pipe 14)	106.6	17.4	88	2.4	12.7	0.0	4.5
CUZCOXM08W CUZCOXM09W	90.7	26.0	80	23.5	13.9	0.0	4.9
MEAN	128.1	21.0	84	6.0	17.9	0.6	4.7

Differences in yield between any two hybrids of less than 25.4 bushels are not considered significant.

Table 33. 1966 performance record for pipe corn double crosses (800-900 Maturity Series). Tested at Bradford Farm near Columbia, Missouri. Planted May 25, 1966. Harvested November 17, 1966 (Exp. 19).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
MO15WXM016W MO22XC164	105.2	18.9	99	25.4	7.0	2.8	4.0
E686XKY36-11 MO15WXM016W	103.1	17.1	99	2.8	11.3	0.0	3.8
CI64XM014W M08WXM09W	100.8	22.8	94	42.6	2.9	1.5	4.0
E184XC164 M08WXM09W	100.5	20.6	88	65.1	9.5	0.0	3.8
CI21EXM06 MO15WXM016W	98.8	17.9	96	4.3	2.9	0.0	3.8
B37XT202 MO15WXM016W	97.2	16.1	94	1.5	7.4	0.0	3.8
E184XK55 MO15WXM016W	96.0	18.9	97	10.0	8.6	0.0	3.5
B37XT202 M08WXM09W	95.4	24.1	88	9.5	9.5	0.0	3.9
T204XT202 M08WXM09W	95.2	25.4	97	20.0	7.1	0.0	4.4
T204XT208 MO15WXM016W	93.8	18.6	96	5.8	8.7	2.9	4.6
K10XKY49F ₁ MO15WXM016W(Mo Pipe 14)	93.0	16.8	96	24.6	20.3	1.4	3.5
E184XT357 MO15WXM016W	92.3	18.6	94	10.3	16.2	0.0	4.3
T458XK4KY36-11 M08WXM09W	92.3	23.2	94	19.1	4.4	0.0	4.1
E686XKY36-11 M08WXM09W	91.6	23.3	97	17.1	5.7	0.0	3.8
VA10XC166 MO15WXM016W	91.5	17.0	94	4.4	1.5	4.4	4.0
E184XK55 M08WXM09W	91.3	23.3	92	36.4	7.6	0.0	3.4
CI64XK55 MO15WXM016W	91.2	16.6	96	7.2	4.3	0.0	3.6
E184XT357 M08WXM09W	91.1	25.6	89	57.8	6.3	0.0	4.0
T458XK4KY36-11 MO15WXM016W	91.0	17.3	96	4.3	23.2	2.9	3.8
K10XKY49F ₁ M08WXM09W(Mo Pipe 4)	90.2	23.2	92	53.0	16.7	0.0	3.5
K4XB2 MO15WXM016W	90.0	17.1	93	3.0	20.9	0.0	3.6
T204XT202 MO15WXM016W	89.5	19.7	93	3.0	28.4	1.5	4.1
T202XC121E MO15WXM016W	89.3	18.7	94	2.9	10.3	1.5	4.0
E184XC164 MO15WXM016W	89.0	16.6	88	12.7	12.7	1.6	3.6
T357XT393 MO15WXM016W	88.8	16.4	97	7.1	4.3	2.9	3.6
CI21EXM06 M08WXM09W	87.7	29.1	94	23.5	4.4	0.0	4.0
VA10XC166 M08WXM09W	87.4	22.4	94	51.5	5.9	0.0	4.0
K4XB2 M08WXM09W	86.6	22.9	92	18.2	13.6	0.0	4.0
T357XT393 M08WXM09W	86.1	26.1	89	56.3	0.0	0.0	3.8
M09WXM01864 MO15WXM016W	86.0	16.5	94	10.3	11.8	0.0	3.4
MO15WXM016W K10XKY49F ₂ (Mo Pipe 14)	84.5	16.3	90	20.0	23.1	3.1	3.3
M08WXM09W CI64XM022	83.5	29.0	92	54.5	3.0	0.0	4.0
T101XT105 MO15WXM016W	83.2	18.4	96	1.4	8.7	2.9	3.9
M08WXM09W MO15WXM016W(Mo Pipe 12)	82.9	18.3	92	24.2	7.6	0.0	3.6
M09WXM01864 MO16WXB37	82.2	16.4	90	6.2	3.1	0.0	3.3
M08WXM09W K10XKY49F ₂ (Mo Pipe 4)	80.7	23.0	92	22.7	10.6	0.0	3.4
T204XT208 M08WXM09W	80.7	23.7	86	56.5	3.2	1.6	4.6
M08WXM09W K10XKY49F ₂ (Mo Pipe 4)	75.3	22.5	94	27.9	20.6	0.0	3.6
T101XT105 M08WXM09W	72.9	26.5	99	22.5	5.6	1.4	4.4
CUZCOXM08W CUZCOXM09W	54.8	22.8	83	23.3	13.3	0.0	4.0
MEAN	89.1	20.7	93	21.7	9.8	0.8	3.8

Differences in yield between any two hybrids of less than 11.7 bushels are not considered significant.

Table 34. 1966 performance record for pipe corn double crosses (800-900 Maturity Series). Tested near Higginsville, Missouri. Planted April 29, 1966. Harvested October 25, 1966 (Exp. 20).

HYBRID	ACRE	MOISTURE		LODGED PLANTS		DROPPED	EAR
	YIELD BU.	IN GRAIN %	STAND %	ROOT %	STALK %	EARS %	HEIGHT GRADE
K10XKY49F ₁ M08WXM09W (Mo Pipe 4)	76.6	17.0	85	23.5	11.8	0.0	4.5
E184XC164 M08WXM09W	75.8	19.4	78	24.2	9.7	0.0	4.4
T204XT208 M08WXM09W	75.1	23.7	84	4.5	11.9	0.0	4.9
CI64XM014W M08WXM09W	72.9	22.9	84	14.9	7.5	0.0	4.5
E184XK55 M08WXM09W	72.3	21.8	79	38.1	0.0	0.0	4.1
CI64XK55 M015WXM016W	72.0	17.6	96	2.6	7.8	0.0	4.3
M08WXM09W K10XKY49F ₂ (Mo Pipe 4)	69.7	16.9	81	1.5	10.8	0.0	3.8
B37XT202 M08WXM09W	69.0	18.3	86	2.9	8.7	0.0	4.3
M015WXM016W M022XC164	69.0	17.8	85	7.4	8.8	0.0	4.6
E184XT357 M08WXM09W	68.8	24.5	90	25.0	8.3	1.4	4.8
K4XB2 M08WXM09W	68.7	19.0	86	18.8	13.0	1.4	4.6
M09WXM01864 M016WX837	67.5	17.2	88	2.9	7.1	1.4	4.0
T458XK4 KY36-11 M08WXM09W	67.5	25.5	84	9.0	13.4	0.0	4.6
VA10XC166 M08WXM09W	66.8	21.5	89	21.1	8.5	0.0	4.3
T204XT202 M015WXM016W	66.1	17.2	90	1.4	13.9	0.0	4.8
B37XT202 M015WXM016W	66.0	16.5	84	0.0	7.5	0.0	4.0
M09WXM01864 M015WXM016W	65.3	17.0	91	2.7	5.5	0.0	4.1
CI21EXM06 M08WXM09W	62.8	24.6	81	7.7	6.2	0.0	4.3
E184XK55 M015WXM016W	62.8	16.8	79	7.9	9.5	0.0	4.1
T458XK4 KY36-11 M015WXM016W	62.8	17.4	85	2.9	7.4	0.0	4.1
E184XC164 M015WXM016W	62.7	17.2	85	1.5	10.3	0.0	4.3
T204XT202 M08WXM09W	62.3	22.9	79	1.6	12.7	0.0	4.8
E686XKY36-11 M015WXM016W	62.2	17.2	83	1.5	10.6	1.5	4.0
E184XT357 M015WXM016W	61.6	17.3	75	3.3	13.3	0.0	4.3
M015WXM016W K10XKY49F ₂ (Mo Pipe 14)	61.5	15.3	84	1.5	19.4	0.0	4.4
K10XKY49F ₁ M015WXM016W (Mo Pipe 14)	61.1	15.9	84	3.0	11.9	0.0	4.3
T101XT105 M015WXM016W	60.6	17.6	86	0.0	14.5	0.0	4.4
T357XT393 M08WXM09W	60.4	22.9	81	12.3	6.2	1.5	4.4
CI21EXM06 M015WXM016W	60.3	18.5	84	1.5	3.0	0.0	4.3
T202XC121E M015WXM016W	60.1	18.5	89	0.0	11.3	2.8	4.4
T357XT393 M015WXM016W	57.0	17.8	81	3.1	7.7	0.0	4.0
T204XT208 M015WXM016W	56.6	17.2	81	0.0	9.2	3.1	4.8
M08WXM09W CI64XM022	55.6	23.9	78	12.9	3.2	0.0	4.4
K4XB2 M015WXM016W	54.7	15.0	83	1.5	15.2	1.5	4.1
T101XT105 M08WXM09W	53.2	25.3	90	6.9	16.7	2.8	4.5
M08WXM09W K10XKY49F ₂ (Mo Pipe 4)	52.1	20.4	86	13.0	15.9	0.0	4.0
E686XKY36-11 M08WXM09W	51.6	19.2	76	3.3	8.2	0.0	4.4
VA10XC166 M015WXM016W	51.3	18.5	89	5.6	5.6	0.0	4.3
M08WXM09W M015WXM01 (Mo Pipe 12)	51.0	20.7	88	4.3	7.1	0.0	4.0
CUZCO X M08W CUZCO X M09W	29.7	26.1	74	18.6	11.9	1.7	4.4
MEAN	62.6	19.5	84	7.9	9.8	0.5	4.3

Differences in yield between any two hybrids of less than 13.4 bushels are not considered significant.

Table 35. 1966 performance record for pipe corn double crosses (800-900 Maturity Series). Tested near Washington, Missouri. Planted May 26, 1966. Harvested November 1, 1966 (Exp. 21).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
MO15WXM016W MO22XCI64	100.7	21.5	110	0.0	2.5	1.3	4.5
E184XCI64 M08WXM09W	96.4	24.5	97	0.0	7.1	0.0	4.8
M08WXM09W CI64XM022	92.0	28.4	108	0.0	5.1	0.0	4.6
T204XT202 M08WXM09W	90.2	25.2	100	0.0	2.8	1.4	5.0
K10XKY49F ₁ MO15WXM016W (Mo Pipe 14)	90.2	17.8	100	0.0	2.8	0.0	4.4
T204XT202 MO15WXM016W	89.4	21.5	101	1.4	1.4	0.0	4.6
E184XT357 M08WXM09W	86.9	29.4	101	2.7	8.2	0.0	4.5
T204XT208 MO15WXM016W	85.9	22.5	97	0.0	1.4	0.0	4.8
VA10XCI66 M08WXM09W	85.3	27.3	100	2.8	5.6	0.0	4.6
E184XK55 MO15WXM016W	83.5	19.9	103	0.0	6.8	0.0	4.3
B37XT202 M08WXM09W	83.4	25.5	99	5.6	2.8	0.0	4.4
CI64XM014W M08WXM09W	83.3	27.3	101	1.4	2.7	1.4	4.4
VA10XCI66 MO15WXM016W	82.4	22.1	104	0.0	1.3	0.0	4.4
E184XCI64 MO15WXM016W	82.1	19.1	94	0.0	4.4	0.0	4.5
CI64XK55 MO15WXM016W	80.9	20.9	103	1.4	12.2	0.0	4.3
E184XT357 MO15WXM016W	80.8	22.6	100	0.0	6.9	0.0	4.5
B37XT202 MO15WXM016W	80.2	19.1	96	0.0	4.3	0.0	4.3
T204XT208 M08WXM09W	79.8	27.6	99	0.0	1.4	0.0	4.9
T202XCI21E MO15WXM016W	78.2	21.7	99	0.0	5.6	0.0	4.5
M09WXM01864 MO15WXM016W	78.2	20.7	101	0.0	6.8	0.0	4.0
CI21EXM06 M08WXM09W	76.7	30.0	101	0.0	5.5	2.7	4.3
K4XB2 MO15WXM016W	76.5	20.9	99	0.0	1.4	0.0	4.1
E184XK55 M08WXM09W	76.1	29.7	96	2.9	2.9	0.0	4.3
M08WXM09W K10XKY49F ₂ (Mo Pipe 4)	74.9	23.7	97	1.4	2.9	0.0	4.0
CI21EXM06 MO15WXM016W	74.7	26.6	94	0.0	0.0	0.0	4.1
K10XKY49F ₁ M08WXM09W (Mo Pipe 4)	74.6	24.7	94	0.0	8.8	0.0	4.1
M09WXM01864 MO16WXB37	74.2	18.7	97	0.0	2.9	1.4	3.8
M08WXM09W MO15WXM016W (Mo Pipe 12)	73.9	20.5	93	0.0	4.5	0.0	4.0
MO15WXM016W K10XKY49F ₂ (Mo Pipe 14)	73.9	15.9	100	1.4	6.9	0.0	3.9
T101XT105 MO15WXM016W	73.9	20.1	93	0.0	3.0	1.5	4.5
T458XK4 KY36-11 M08WXM09W	73.6	28.5	99	0.0	4.2	1.4	4.4
T357XT393 M08WXM09W	73.3	28.0	93	1.5	1.5	0.0	4.3
T458XK4-KY36-11 MO15WXM016W	72.4	21.7	94	0.0	4.4	0.0	4.3
E686XKY36-11 MO15WXM016W	72.0	19.1	92	0.0	6.1	0.0	3.9
K4XB2 M08WXM09W	71.2	26.8	90	0.0	9.2	1.5	4.5
E686XKY36-11 M08WXM09W	70.7	22.5	96	0.0	10.1	0.0	4.0
M08WXM09W K10XKY49F ₂ (Mo Pipe 4)	70.1	24.7	106	2.6	13.2	0.0	4.3
T101XT105 M0800XM09W	68.5	30.9	108	0.0	2.6	0.0	4.5
T357XT393 MO15WXM016W	65.4	21.5	86	0.0	3.2	1.6	4.0
CUZCOXM08W CUZCOXM09W	44.9	30.7	94	2.9	7.4	0.0	4.9
MEAN	78.5	23.7	98	0.7	4.8	0.4	4.4

Differences in yield between any two hybrids of less than 9.5 bushels are not considered significant.

Table 36. Summary of performance records for pipe corn double crosses (800-900 Maturity Series). Tested near Golden City, Columbia, Higginsville and Washington, Missouri (Expts. 18, 19, 20 and 21).

HYBRID	ACRE YIELD BU.	MOISTURE IN GRAIN %	STAND %	LODGED ROOT %	PLANTS STALK %	DROPPED EARS %	EAR HEIGHT GRADE
M08WXM09W CI64XM022	92.7	26.8	90	17.3	7.8	0.2	4.5
M08WXM09W K10XKY49F ₂ (Mo Pipe 4)	87.3	21.3	89	8.1	9.2	0.0	3.8
M08WXM09W M015WXM016W (Mo Pipe 12)	85.2	20.1	90	10.0	8.7	0.0	4.1
M015WXM016W K10XKY49F ₂ (Mo Pipe 14)	83.5	16.1	91	6.7	16.9	1.4	3.9
T204XT202 M08WXM09W	96.9	24.2	90	5.4	12.4	0.8	4.9
T204XT202 M015WXM016W	92.8	19.3	93	2.2	17.8	0.6	4.6
CI21EXM06 M08WXM09W	90.0	27.5	89	8.7	10.5	0.7	4.4
CI21EXM06 M015WXM016W	94.2	20.9	91	2.6	4.0	0.0	4.3
K4XB2 M08WXM09W	88.9	22.1	88	12.1	18.2	0.7	4.5
K4XB2 M015WXM016W	85.5	17.7	90	2.3	14.4	0.6	4.2
T202XC121E M015WXM016W	90.4	19.7	93	1.9	9.9	1.1	4.5
B37XT202 M08WXM09W	96.7	22.6	90	5.1	9.8	0.2	4.4
B37XT202 M015WXM016W	90.8	17.5	89	1.0	7.4	0.0	4.2
CUZCOXM08W CUZCOXM09W	55.0	26.4	83	17.1	11.6	0.4	4.6
CI64XK55 M015WXM016W	93.1	18.2	94	3.0	10.6	0.4	4.1
K10XKY49F ₁ M08WXM09W (Mo Pipe 4)	93.3	21.0	90	23.7	16.4	0.4	4.1
M09WXM01864 M015WXM016W	84.5	18.5	94	3.7	10.8	0.0	3.9
M015WXM016W M022XCI64	102.4	19.5	96	9.0	7.3	1.6	4.4
M09WXM01864 M016WXB37	85.2	17.5	91	2.3	6.6	0.9	3.9
CI64XM014W M08WXM09W	101.1	23.9	90	15.2	6.3	0.7	4.5
K10XKY49F ₁ M015WXM016W (Mo Pipe 14)	87.7	17.0	92	7.5	11.9	0.4	4.2
T101XT105 M015WXM016W	86.5	18.5	91	0.4	10.4	1.1	4.4
T357XT393 M015WXM016W	81.1	19.1	88	3.5	5.8	1.5	4.0
VA10XCI66 M015WXM016W	88.9	19.2	94	2.9	3.9	1.3	4.4
E184XK55 M015WXM016W	93.2	18.5	92	4.9	9.0	0.2	4.1
E184XT357 M015WXM016W	90.3	19.5	87	4.7	15.0	0.2	4.4
E184XCI64 M015WXM016W	90.3	17.8	88	6.2	9.9	0.4	4.3
T204XT208 M015WXM016W	94.2	19.1	88	1.5	6.6	1.7	4.8
T458XK4-KY36-11 M015WXM016W	86.0	19.4	89	2.2	12.5	1.0	4.2
E686XKY36-11 M015WXM016W	92.5	17.9	89	1.9	11.7	0.4	4.0
T101XT105 M0800XM09W	80.7	26.7	95	8.6	10.4	1.3	4.6
T357XT393 M08WXM09W	90.8	25.0	85	18.0	4.0	0.4	4.3
E184XT357 M08WXM09W	96.6	26.3	92	29.3	10.8	0.4	4.6
E184XCI64 M08WXM09W	104.2	21.9	88	27.4	14.1	0.0	4.5
E686XKY36-11 M08WXM09W	82.1	21.9	89	5.5	15.2	0.0	4.2
VA10XCI66 M08WXM09W	92.5	23.9	91	21.0	8.7	0.4	4.5
E184XK55 M08WXM09W	92.0	25.0	87	23.9	6.1	0.0	4.1
T204XT208 M08WXM09W	95.2	24.7	89	18.1	8.0	0.4	4.9
T458XK4 KY36-11 M08WXM09W	92.2	25.5	89	7.5	12.5	0.6	4.5
M08WXM09W K10XKY49F ₂ (Mo Pipe 4)	77.2	22.0	90	11.1	20.1	0.2	4.1
MEAN	89.6	21.2	90	9.1	10.6	0.6	4.3