

Performance of  
Experimental Corn Hybrids in Virginia,  
1962

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## PERFORMANCE OF EXPERIMENTAL CORN HYBRIDS IN VIRGINIA, 1962

C. F. Genter

The development and evaluation of better performing corn inbred lines and hybrids remain an important objective of the corn research program of the Virginia Agricultural Experiment Station. Extensive tests to evaluate inbred lines and double crosses developed in Virginia were conducted in 1962. This report summarizes the results of these trials. The results reported will be of primary interest to corn breeders and seed producers. Performance records of a few advanced double cross hybrids tested in 1962 are given in Research Report 68 of the Virginia Agricultural Experiment Station.

Inbreds were evaluated only in single crosses. Most of the older lines were tested in all possible combinations with the other lines in the test, with some exceptions made for crosses of related lines. Newer inbred lines were evaluated in crosses with several of the older lines. Most of the newer inbred lines carry only row numbers for temporary designation.

Single crosses were used for inbred evaluation for several reasons. Since inbreds ultimately go into specific combinations, knowledge of specific combining ability with other lines is valuable. Days to silking for single crosses is very useful when planning new double crosses. Desirability of single crosses for use as seed parents is also an important factor, although only general notes in this regard were made in these trials and no actual screen size data are available.

Since results of single cross tests will be of particular interest to seedsmen in planning new double crosses, an illustration of the use of single cross data in predicting performance of double crosses follows. Six single crosses can be made with the four inbred lines. If performance data are available for these single crosses, the theoretical performance of a double cross made by crossing two of them is calculated by averaging the performance of the four non-parental single crosses. If (a x b) and (c x d) were used as parents (parental single crosses), the expected performance of that double cross would be the average performance of the other four (non-parental) single crosses, namely, a x c, a x d, b x c, and b x d.

The specific combining ability of the parental single crosses is of concern only to the seed producer. The use of related line single crosses may give relatively low yields of seed, but this will not have a direct bearing upon the yields of the hybrids produced. The important consideration is the combining abilities of the non-parental crosses. However, even though theoretical performance of a new hybrid may be very good, it should be actually tested before widespread distribution.

### Methods of Evaluation

All tests were conducted in replicated tests using a lattice design with three replications. The same group of crosses was tested at two or more locations. Plant populations in all of the tests were relatively high. Most tests were planted thick and thinned to stands of approximately 20,000 plants per acre. Tests conducted at Blacksburg were planted thick and not thinned and final stands averaged slightly in excess of 20,000 plants per acre. Cultural methods used are given with each table of results.

Data were taken on all plots. Corn was harvested from the standing stalks. Samples for moisture determinations were obtained by removing kernels from each of several ears. Corn yields were adjusted to 15-1/2% moisture. Quality of grain was rated visually on the ear following harvest, scored primarily with respect to diseased ears and kernels. Quality was scored from 1, which is very poor quality, to 5, which is excellent quality, with a score of 3 being "good".

Lodged and broken plants were counted just prior to harvest. Lodged plants were leaning from the roots at angles of 45° or lower. Plants were counted broken if broken below the ear. Husk ratings were also made just prior to harvest and scored from 1 to 5. Husks that just covered the tip of the ear were rated 3 and the longer the husks the higher the score.

Grain yields are reported in actual bushels per acre and in "relative yield" compared to the average of all hybrids in the test. A few exceptions to this rule were made (and noted on the tables) involving crosses of related lines.

The author is deeply indebted to the cooperators at the various locations. Without their help these tests could not have been conducted. The cooperator is listed with the data from each location. The author also expresses appreciation to Dr. C. W. Roane of the Department of Plant Pathology and Physiology for the leaf blight ratings reported, and to the Computing Center of the Statistics Department, and particularly to Mrs. F. A. Whiter, for processing the data obtained.

The origins of the inbred lines which were developed in Virginia and which were tested in 1962 are as follows:

<u>Inbred designation</u>	<u>Origin</u>
Va 11	M14 x C103
Va 12	CI 21 x C103 <sup>2/</sup>
Va 13	K4 x C103 <sup>2/</sup>
Va 14	K201 x C103 <sup>2/</sup>
Va 15	H018 outcross
Va 17	WF9 x T8
Va 18	Oh 28 x T8
Va 19	C103 x Va 1
Va 20	C103 x Oh 40B
Va 25	Oh45 x W24
Va 26	Oh 43 x K155
Va 27	CI 7 x Mo557
Va 28	Golden Queen o.p.
Va 29	" " "
Va 31	WF9 x close relative
Va 32	" " "
Va 33	T8 cross
Va 35	T8 x C103 <sup>2/</sup>
Va 36	T8 x C103
Va 40	(mst x Rf) x Hy3 <sup>6/</sup>
Va 41	( " ) x Oh45 <sup>6/</sup>
Va 42	( " ) x C103 <sup>6/</sup>
Va 43	Long ear syn
Va 44	K201 x C103 <sup>2/</sup>
21047	ms Rf x Oh43 <sup>6/</sup>
21060	[(K155 x Oh43) x Oh45] x Oh43
21067	" " "
21068	Oh 43 x C103
21071	"
21086	"
21101	ms Rf x Oh43 <sup>6/</sup>
21105	Oh43 x Ill. M14
21052	WF9 related double cross
21148	" " " "
21150	" " " "
21157	T8 x WF9 <sup>2/</sup>
21163	WF9 x Southern composite
21167	" " "
21172	" " "
21174	" " "
21188	Hy3 x Southern composite
21416	Lancaster Sure crop
21420	" " "
21425	" " "
21427	" " "
21428	" " "
21433	" " "
21434	" " "

The pedigrees of the hybrids which were developed in Virginia and which were tested in 1962 are as follows:

<u>Variety</u>	<u>Pedigree</u>
Va 219	(Va 17 x Va 28) (Hy3 x C103)
" 226	(Hy3 x Va 28) (Va 17 x 21344)
" 227	( " ) (Va 17 x Va 44)
" 237	(Va 17 x Va 27) (Hy3 x C103)
" 239	(WF9 x Hy3) (Va 36 x Va 28)
" 240	(WF9 x Hy3) (Va 35 x Va 28)
" 244	(Va 31 x Hy3) (Va 35 x Va 28)
" 245	( " ) (Va 35 x C103)
" 246	( " ) (Va 35 x Va 25)
" 247	( " ) (Va 35 x Va 27)
" 248	( " ) (Va 35 x 21105)
" 249	( " ) (Va 35 x 21071)
" 250	( " ) (Va 35 x 21079)
" 251	( " ) (Va 35 x 21086)
" 252	( " ) (Oh 43 x 21105)
" 253	( " ) (21047 x 21105)
" 254	( " ) (Oh 43 x Va 13)
" 255	( " ) (21047 x Va 36)
" 256	( " ) (Oh 43 E x C103)
" 257	(Va 17 x Hy3) (Va 27 x Va28)
" 258	( " ) (Va 27 x C103)
" 259	( " ) (Va 27 x Va 25)
" 260	(Va 31 x Va 35) (Va 27 x Va 28)
" 261	( " ) (Va 27 x Hy3)
" 262	( " ) (Va 27 x Va 25)
" 263	( " ) (Va 40 x 21105)
" 264	( " ) (Hy3 x Va 29)
" 265	(Va 31 x Va 27) (Hy3 x C103)
" 266	( " ) (Hy3 x Va 36)
" 267	( " ) (Hy3 x Va 35)
" 268	( " ) (C103 x Va 35)
" 269	( " ) (C103 x 21071)
" 280	(Va 31 x 21105) (Hy3 x Va 35)
" 281	( " ) (Hy3 x Va 14)
" 285	(Va 31 x Va 27) (Va 40 x 21086)
" 286	( " ) (Va 35 x Va 36)
" 288	(Va 17 x Va 28) (Va 27 x C103)
" 289	( " ) (Va 27 x Va 11)
" 290	(Va 27 x Va 28) (Hy3 x C103)
" 291	(Va 31 x Va 33) ( " )
" 292	(Va 17 x Va 27) (Va 40 x Va 28)
" 293	(Va 31 x T8) (Va 14 x Hy3)
" 294	(Va 27 x Hy3) (Va 35 x 21079)
" 295	( " ) (Va 35 x 21086)
" 296	( " ) (Va 35 x 21105)
" 297	(Va 31 x Va 27) (Va 40 x 21079)
" 298	(Va 27 x Hy3) (Va 17 x 9394)
VPI 646	(WF9 x T8) (38-11 x C103)
" 648	(WF9 x T8) (Hy3 x C103)
Va 4	(Va 31 x Hy3) (Oh43 x Va 35)
" 88	(Va 31 x Oh51A) (Oh43 x Va 25)
" 244	(Va 31 x Hy3) (Va 35 x Va 28)
" 270	(Va 32 x W22) (Oh43 x Va 35)
" 271	(Va 32 x W22) (Va 25 x Va 35)
" 272	(Va 31 x Oh51A) (21071 x Va 35)
" 273	( " ) (21079 x Va 35)
" 274	( " ) (Va 25 x Va 35)
" 276	( " ) (Oh 43 x A545)
" 277	( " ) (Va 25 x A545)
" 278	( " ) (Va 20 x Va 11)
" 279	( " ) (Oh 43 x Va 14)
" 282	(Va 31 x 21424) (Oh 43 x Va 28)
" 283	( " ) (Va 20 x Va 11)
" 284	( " ) (Oh 43 x Va 25)
" 299	(Va 31 x Hy3) (Va 11 x Va 25)
" 300	(Va 31 x A545) (Oh 43 x Va 25)
" 301	(Va 31 x 21105) (Oh 51A x A545)
" 302	(Va 31 x A545) (Va 35 x 21071)
" 303	( " ) (Oh 43 x W153R)
" 517	(Va 31 x Oh 43) (Oh 51A x Va 35)

Table 1. Performance of single crosses of 15 inbred lines, Holland, 1962 (Experiment 180)

Pedigree	Days to silk	% Ldg.	% Bro.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qu <sup>2/</sup>	Ears /100 plants	Ear ht. ft.	Husk <sup>3/</sup>
Va 41 x Va 31	70	0	6	144.1	102	21.7	3.5	96	3.3	2.8
Va 41 x Va 32	70	0	1	146.4	104	21.8	3.8	103	3.0	3.0
Va 41 x Va 17	70	0	3	160.8	114	22.1	4.2	98	3.6	2.8
Va 41 x Va 40	69	0	4	127.6	90	22.2	3.5	89	4.0	3.0
Va 41 x Ab 16	72	0	1	141.6	100	21.3	4.0	97	3.3	3.0
Va 41 x Va 18	70	0	2	134.2	95	21.7	3.8	89	3.1	2.8
Va 41 x Va 15	68	3	0	136.1	96	18.6	4.2	98	3.5	3.0
Va 41 x Va 27	69	0	4	142.7	101	21.7	3.8	99	3.3	2.6
Va 41 x Va 28	72	7	4	152.9	108	21.8	4.2	96	4.3	3.0
Va 41 x Va 29	71	1	5	180.1	127	24.1	3.8	95	4.0	3.0
Va 41 x Va 43	72	11	2	136.5	97	22.4	4.0	89	3.5	3.0
Va 20 x Va 31	66	0	1	136.9	97	17.3	3.3	99	3.3	3.0
Va 20 x Va 32	71	0	4	144.8	102	18.3	4.0	96	3.3	3.0
Va 20 x Va 17	70	0	3	156.5	111	20.7	4.0	96	3.5	2.8
Va 20 x Va 40	71	1	0	150.4	106	21.4	4.2	95	3.6	3.0
Va 20 x Ab 16	72	0	4	127.3	90	17.4	4.3	93	3.3	3.0
Va 20 x Va 18	71	0	1	132.1	93	18.3	4.0	87	3.1	3.0
Va 20 x Va 15	70	0	27	99.4	70	15.3	4.0	96	3.1	3.0
Va 00 x Va 27	70	0	3	141.6	100	17.1	4.0	96	3.8	2.8
VPI 646	72	2	7	153.7	109	18.8	3.8	93	4.6	2.8
Va 20 x Va 29	73	0	7	178.9	127	20.5	3.7	93	4.1	3.0
Va 20 x Va 43	72	4	1	150.8	107	20.6	4.0	97	3.3	3.0
Va 25 x Va 31	66	0	5	122.7	87	20.3	4.0	100	3.6	2.8
Va 25 x Va 32	67	2	27	118.5	84	19.5	3.7	97	3.5	2.8
Va 25 x Va 17	69	4	1	137.7	97	22.1	4.0	96	3.5	2.6
Va 25 x Va 40	71	0	3	134.3	95	20.9	4.0	95	4.3	3.0
Va 25 x Ab 16	72	0	13	126.4	89	19.3	4.0	96	4.0	3.0
Va 25 x Va 18	69	0	13	127.0	90	19.7	3.3	94	3.5	2.8
Va 25 x Va 15	66	0	15	126.6	90	17.6	4.3	97	3.6	3.0
Va 25 x Va 27	72	0	9	126.0	89	20.0	3.2	93	4.0	2.6
Va 25 x Va 28	73	7	41	126.2	89	20.8	3.7	87	4.1	3.0
Va 25 x Va 29	71	1	11	172.1	122	24.7	3.8	94	4.1	3.0
Va 25 x Va 43	69	0	4	156.0	110	20.8	4.2	93	3.3	2.8
Va 31 x Va 40	69	0	5	118.0	83	16.4	3.8	98	3.6	3.0
Va 31 x Ab 16	69	0	24	123.8	88	16.5	3.5	101	3.3	3.0
Va 31 x Va 18	67	0	3	130.6	92	18.7	3.8	99	3.3	3.0
Va 31 x Va 15	66	0	38	114.9	81	14.9	4.2	99	3.3	2.8
Va 31 x Va 27	69	0	35	117.0	83	16.8	3.5	93	3.3	2.8
Va 31 x Va 28	68	0	22	114.4	81	18.2	4.0	96	3.8	3.0
Va 31 x Va 29	71	4	17	169.8	120	21.9	3.8	99	4.0	3.0
Va 31 x Va 43	67	5	22	130.2	92	17.1	3.5	104	3.3	3.0
Va 32 x Va 40	69	0	7	137.3	97	18.7	4.2	99	3.6	3.0
Va 32 x Ab 16	71	0	12	123.5	87	17.7	3.2	100	3.5	3.0
Va 32 x Va 18	66	1	4	126.3	89	17.9	3.2	94	3.5	3.0
Va 32 x Va 15	66	2	20	136.7	97	17.2	4.0	95	3.5	3.0
Va 32 x Va 27	68	2	19	119.9	85	17.6	3.5	97	3.1	3.0
Va 32 x Va 28	69	7	30	124.1	88	16.4	3.8	96	4.0	2.8
Va 32 x Va 29	70	0	20	153.6	109	22.1	3.8	99	4.1	3.0
Va 32 x Va 43	68	2	10	144.7	102	17.2	3.7	96	3.5	3.0
Va 17 x Va 40	71	0	8	140.1	99	20.1	4.0	94	4.0	2.8
Va 17 x Ab 16	72	0	28	152.9	108	19.6	4.0	99	3.8	2.6
(Va 17 x Va 18) <sup>4/</sup>	73	7	5	124.2	88	18.8	3.7	96	3.5	2.6
Va 17 x Va 15	70	0	13	119.4	84	20.9	4.0	96	3.3	2.6
Va 17 x Va 27	72	1	10	141.0	100	18.6	3.0	96	3.6	2.5
Va 17 x Va 28	74	41	10	133.7	95	18.3	3.8	98	3.6	2.6
Va 17 x Va 29	74	18	11	187.8	133	23.7	4.2	94	4.1	2.8
Va 17 x Va 43	71	5	8	175.9	124	19.6	4.2	97	3.8	2.5

Table 1. Continued.

Pedigree	Days to silk	% Ldg.	% Bro.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qu <sup>2/</sup>	Ears /100 plants	Ear ht. ft.	Husk <sup>3/</sup>
Va 40 x Ab 16	72	0	13	131.2	93	18.6	4.2	98	3.5	3.0
Va 40 x Va 18	69	0	2	153.2	108	18.4	3.7	96	3.8	3.0
Va 40 x Va 15	71	4	8	121.2	86	18.1	4.2	96	3.6	3.0
Va 40 x Va 27	72	0	29	126.8	90	21.1	3.7	95	4.3	2.8
Va 40 x Va 28	73	0	14	125.5	89	19.8	4.0	93	4.5	3.0
Va 40 x Va 29	73	0	15	175.9	124	22.5	4.2	96	4.3	3.0
Va 40 x Va 43	72	0	10	151.1	107	19.4	4.0	97	4.3	3.0
Ab 16 x Va 18	71	0	6	144.1	102	18.9	3.7	99	3.6	2.8
Ab 16 x Va 15	71	0	57	109.2	77	18.4	4.2	93	3.8	3.0
Ab 16 x Va 27	73	2	40	126.5	89	19.7	3.5	96	4.0	2.8
Ab 16 x Va 28	72	0	50	146.6	104	18.5	3.8	101	4.0	3.0
Ab 16 x Va 29	73	1	23	172.3	122	21.9	4.3	93	4.1	3.0
Ab 16 x Va 43	72	0	14	155.8	110	20.5	4.2	101	3.8	3.0
Va 18 x Va 15	68	0	4	139.2	98	16.5	4.0	99	3.5	2.6
Va 18 x Va 27	69	2	5	149.6	106	17.9	3.0	98	3.6	2.6
Va 18 x Va 28	72	2	19	151.3	107	19.2	3.5	97	4.0	2.6
Va 18 x Va 29	70	7	5	192.3	136	22.7	4.2	99	3.6	2.5
Va 18 x Va 43	72	7	13	146.9	104	19.6	4.2	96	3.1	2.6
Va 15 x Va 27	69	0	29	114.9	81	17.3	4.2	97	3.6	3.0
Va 15 x Va 28	69	0	50	117.6	83	19.0	4.2	96	3.6	2.8
Va 15 x Va 29	72	0	47	154.7	109	21.4	3.5	98	3.8	3.0
Va 15 x Va 43	72	3	8	141.6	100	18.8	4.0	96	3.6	3.0
Va 27 x Va 28	72	0	53	121.6	86	17.8	3.7	96	4.5	2.8
Va 27 x Va 29	71	28	20	166.8	117	19.8	3.2	98	3.8	2.6
Va 27 x Va 43	70	2	11	161.7	114	21.5	3.7	98	4.0	2.8
Va 28 x Va 29	73	3	50	173.9	123	21.9	3.7	95	5.1	2.8
Va 28 x Va 43	72	24	39	166.9	118	21.1	4.2	95	4.0	2.8
Va 29 x Va 43	73	8	33	182.1	129	22.7	3.2	98	3.6	3.0
Va 35 x Va 41	66	0	1	152.4	108	22.4	3.8	96	3.3	2.8
Va 35 x Va 31	65	0	4	141.3	100	18.0	4.0	96	3.6	3.0
Va 35 x Va 32	68	0	1	138.5	98	18.0	3.2	96	3.3	3.0
Va 35 x Va 40	71	0	1	149.0	105	19.5	4.5	99	4.1	2.8
Va 35 x Ab 16	71	1	2	142.7	101	19.0	3.8	98	3.6	3.0
Va 35 x Va 15	69	6	18	116.2	82	17.7	4.0	101	3.5	2.8
Va 35 x Va 18) <sup>4/</sup>	71	0	1	130.9	93	18.3	3.5	99	3.5	2.5
Va 35 x Va 20	67	0	2	134.4	95	19.1	4.3	95	3.6	3.0
Va 35 x Va 25	68	2	5	131.5	93	20.5	4.0	98	3.5	2.5
Va 35 x Va 27	69	0	3	145.2	103	20.8	3.7	99	3.8	2.8
Va 35 x Va 28	71	2	13	140.4	99	20.1	4.0	94	4.0	3.0
Va 35 x Va 29	72	18	13	168.0	119	22.9	3.8	98	4.1	2.8
Va 35 x Va 43	72	2	5	171.6	121	19.9	4.3	99	4.0	2.8
(Va 35 x Va 17) <sup>4/</sup>	72	5	0	115.2	81	19.7	3.8	99	3.1	2.6
Va 4	70	0	4	133.1	94	18.6	3.5	96	3.6	3.0
Means	70	2	13	141.3	100	19.6	3.8	96	3.7	2.9

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> 1 = very poor to 5 = very good.

<sup>3/</sup> 1 = short to 5 = long.

<sup>4/</sup> Crosses of related lines given in parentheses.

Planted April 25, harvested September 19.

Plot size: 3' x 33'. Reps: 3.

Plants per acre: 19,800.

Cooperator: M. W. Alexander, Tidewater Research Station.



Table 2. Performance of single crosses of 15 inbred lines, Blacksburg, 1962.  
(Experiment 181)

Pedigree	Days to silk	% Ldg.	% Bro.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qu <sup>2/</sup>	Ears /100 plants	Ear ht. ft.	Husk <sup>3/</sup>	Leaf blight <sup>4/</sup>
Va 41 x Va 31	84	0	19	96.6	91	25.8	3.2	92	2.3	3.6	1.6
Va 41 x Va 32	83	0	3	106.0	99	27.5	3.2	92	2.1	3.3	1.5
Va 41 x Va 17	85	0	1	119.6	112	28.1	3.8	96	2.1	3.3	.6
Va 41 x Va 40	88	0	1	108.7	102	25.2	3.0	82	2.3	4.0	.8
Va 41 x Ab 16	87	0	6	104.7	98	26.8	3.3	95	2.6	2.6	.5
Va 41 x Va 18	86	0	11	94.8	89	27.1	3.8	95	2.1	2.6	.8
Va 41 x Va 15	86	0	5	105.3	99	24.0	3.3	98	2.1	3.0	.5
Va 41 x Va 27	85	0	4	116.2	109	25.7	3.5	96	2.5	2.6	.6
Va 41 x Va 28	87	0	27	109.5	103	25.7	3.2	94	3.0	3.3	.6
Va 41 x Va 29	91	0	5	111.8	105	22.5	2.3	83	2.0	4.3	1.1
Va 41 x Va 43	84	0	10	89.0	84	26.6	2.7	90	1.8	4.0	.5
Va 20 x Va 31	82	0	4	106.1	100	22.3	3.2	97	2.5	3.3	1.0
Va 20 x Va 32	85	0	2	110.5	104	22.1	3.2	91	2.3	3.6	1.0
Va 20 x Va 17	83	0	7	114.3	107	25.3	3.7	93	2.8	3.0	.5
Va 20 x Va 40	87	0	3	110.6	104	24.1	3.5	95	3.0	4.0	.5
Va 20 x Ab 16	88	0	4	102.3	96	25.3	3.7	97	2.5	3.6	.6
Va 20 x Va 18	84	0	2	114.2	107	22.2	3.5	97	2.3	3.0	.6
Va 20 x Va 15	84	0	16	98.3	92	22.5	3.8	93	2.6	3.6	.5
Va 20 x Va 27	87	0	2	111.4	105	22.6	3.3	96	2.3	3.6	.6
VPI 646	89	0	12	99.9	94	25.7	2.3	79	2.5	3.3	1.1
Va 20 x Va 29	87	0	12	124.0	116	27.9	3.5	94	2.8	3.6	.6
Va 20 x Va 43	85	0	2	116.5	109	26.0	3.3	94	2.5	4.6	.8
Va 25 x Va 31	84	0	27	94.3	89	24.9	2.8	88	2.1	3.6	2.6
Va 25 x Va 32	81	0	2	99.5	93	25.3	3.3	92	2.5	3.3	1.8
Va 25 x Va 17	84	0	4	108.6	102	27.9	3.7	98	2.3	3.0	.8
Va 25 x Va 40	89	0	5	109.9	103	26.3	3.5	88	2.8	3.3	.8
Va 25 x Ab 16	87	0	5	108.5	102	24.4	3.0	93	2.5	2.6	.5
Va 25 x Va 18	84	0	8	84.7	79	26.3	3.0	86	2.1	2.3	1.1
Va 25 x Va 15	84	0	30	113.8	107	21.7	4.0	95	2.5	3.3	.5
Va 25 x Va 27	87	0	1	113.0	106	25.0	3.2	98	2.5	2.3	1.1
Va 25 x Va 28	86	0	26	99.4	93	28.5	3.5	85	2.8	3.3	1.1
Va 25 x Va 29	89	0	23	100.5	94	28.8	2.8	85	2.6	3.6	1.1
Va 25 x Va 43	85	0	0	98.1	92	27.0	3.2	91	2.0	4.3	1.1
Va 31 x Va 40	86	0	25	94.8	89	22.1	3.2	86	2.8	3.6	2.3
Va 31 x Ab 16	87	0	18	98.1	92	20.6	2.8	91	2.1	2.6	1.8
Va 31 x Va 18	86	0	27	91.0	85	22.6	2.7	79	2.3	3.0	1.8
Va 31 x Va 15	84	0	55	117.4	110	20.3	3.3	98	2.1	3.0	1.5
Va 31 x Va 27	87	0	12	101.3	95	23.0	3.5	87	2.1	3.3	2.0
Va 31 x Va 28	86	0	74	82.0	77	21.5	2.5	82	2.3	3.6	3.5
Va 31 x Va 29	87	0	18	107.0	100	32.4	3.3	92	2.5	4.3	2.3
Va 31 x Va 43	84	1	8	104.3	98	23.9	3.0	90	2.1	4.3	1.8
Va 32 x Va 40	86	0	8	95.5	90	23.8	3.7	90	2.5	4.0	2.0
Va 32 x Ab 16	86	0	3	108.0	101	23.0	3.2	93	2.1	3.3	1.6
Va 32 x Va 18	85	0	13	86.4	81	21.4	2.5	76	2.1	3.3	2.1
Va 32 x Va 15	84	0	65	89.1	84	25.6	3.0	88	2.5	3.0	1.3
Va 32 x Va 27	86	0	4	93.2	87	26.4	3.2	87	2.3	3.6	1.8
Va 32 x Va 28	84	0	36	89.7	84	19.8	3.0	85	2.6	3.6	3.1
Va 32 x Va 29	89	0	4	106.7	100	31.1	2.7	78	2.5	4.0	1.8
Va 32 x Va 43	84	0	2	100.2	94	21.5	2.7	88	2.1	4.6	2.0
Va 17 x Va 40	86	0	6	118.8	112	25.9	3.7	96	2.6	2.6	1.1
Va 17 x Ab 16	89	0	2	114.2	107	26.0	3.5	98	2.5	3.0	.6
(Va 17 x Va 18) <sup>5/</sup>	89	0	11	87.3	82	23.4	2.8	87	2.5	2.6	.8
Va 17 x Va 15	86	0	24	109.1	102	27.2	3.0	88	2.0	3.6	.5
Va 17 x Va 27	87	0	2	140.8	132	28.2	3.0	94	2.8	2.6	.6
Va 17 x Va 28	90	0	2	101.3	95	22.1	2.3	86	2.3	4.0	.5
Va 17 x Va 29	88	0	5	114.9	108	34.2	2.5	92	2.8	3.6	.5

Table 2. Continued.

Pedigree	Days to silk	% Ldg.	% Bro.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qu <sup>2/</sup>	Ears /100 plants	Ear ht. ft.	Husk <sup>3/</sup>	Leaf blight <sup>4/</sup>
Va 17 x Va 43	88	0	4	106.6	100	25.8	3.0	94	2.3	4.3	.8
Va 40 x Ab 16	90	0	9	94.7	89	23.7	3.2	95	2.8	4.0	.6
Va 40 x Va 18	87	0	17	107.1	101	20.7	3.5	94	2.6	2.0	.6
Va 40 x Va 15	89	0	42	106.3	100	23.2	3.0	95	2.3	4.0	.6
Va 40 x Va 27	87	0	8	108.4	102	24.0	3.7	89	3.1	3.0	1.3
Va 40 x Va 28	89	0	28	99.3	93	24.1	3.2	83	3.3	4.0	1.0
Va 40 x Va 29	89	0	23	123.1	116	27.4	4.0	96	3.1	4.0	1.0
Va 40 x Va 43	84	0	14	113.4	106	23.6	3.2	89	2.0	5.0	.8
Ab 16 x Va 18	86	0	4	102.5	96	23.9	3.5	93	2.3	3.0	.6
Ab 16 x Va 15	88	0	17	108.3	102	22.6	3.5	94	2.3	3.0	.5
Ab 16 x Va 27	90	0	3	104.0	98	25.7	3.0	95	2.6	3.3	.5
Ab 16 x Va 28	88	0	11	107.5	101	25.7	2.7	89	2.6	3.6	.8
Ab 16 x Va 29	92	0	4	118.5	111	26.8	2.5	82	2.6	3.6	.5
Ab 16 x Va 43	88	0	9	107.7	101	25.2	3.2	97	2.5	4.6	1.0
Va 18 x Va 15	84	0	31	103.2	97	21.1	3.5	99	2.6	2.6	.5
Va 18 x Va 27	88	0	2	105.7	99	25.0	3.0	91	2.3	2.0	1.0
Va 18 x Va 28	87	0	33	101.7	95	23.6	3.2	97	2.6	3.0	1.6
Va 18 x Va 29	88	0	10	102.6	96	28.9	3.3	93	2.3	3.0	.5
Va 18 x Va 43	86	0	3	96.6	91	24.1	3.3	91	2.3	3.6	1.0
Va 15 x Lo 27	86	0	12	119.2	112	23.7	3.3	95	2.3	3.3	.6
Va 15 x Lo 28	85	0	45	116.5	109	24.5	3.3	97	2.6	4.0	.8
Va 15 x Lo 29	87	0	44	127.7	120	24.3	3.5	96	3.0	3.3	.5
Va 15 x Va 43	88	0	2	114.2	107	25.5	2.2	88	2.3	4.3	.5
Va 27 x Va 28	90	0	5	96.4	90	20.2	2.5	62	2.8	3.3	1.3
Va 27 x Va 29	87	0	8	124.7	117	29.7	3.5	94	3.0	3.0	.5
Va 27 x Va 43	91	0	3	104.3	98	26.5	2.3	85	2.3	4.0	1.0
Va 28 x Va 29	90	0	23	113.8	107	30.7	3.2	93	2.3	3.6	1.0
Va 28 x Va 43	87	0	5	125.2	118	24.0	4.0	93	2.8	4.3	1.6
Va 29 x Va 43	88	0	19	121.0	114	25.2	3.2	87	2.1	4.6	.8
Va 35 x Va 41	84	0	10	97.0	91	25.5	3.7	94	2.5	2.6	.5
Va 35 x Va 31	84	0	17	114.6	108	22.0	3.3	93	2.0	3.3	1.1
Va 35 x Va 32	85	0	1	97.3	91	22.8	2.8	85	2.3	3.0	.6
Va 35 x Va 40	88	0	25	110.8	104	22.0	4.0	98	2.8	3.3	.5
Va 35 x Ab 16	90	0	7	115.1	108	23.4	3.2	93	3.0	2.3	1.0
Va 35 x Va 15	82	0	48	116.5	109	21.5	3.8	95	2.3	2.0	.5
(Va 35 x Va 18) <sup>5/</sup>	86	0	18	89.2	84	21.6	3.2	92	2.3	2.0	.8
Va 35 x Va 20	83	0	8	113.9	107	23.7	3.7	95	2.3	2.3	.6
Va 35 x Va 25	83	0	10	107.4	101	22.4	3.7	95	2.5	2.0	.5
Va 35 x Va 27	83	0	20	116.1	109	22.3	3.2	87	2.5	2.3	.5
Va 35 x Va 28	89	0	23	101.3	95	26.2	3.0	94	2.6	2.3	.5
Va 35 x Va 29	89	0	24	107.7	101	28.7	2.8	85	2.3	3.0	.5
Va 35 x Va 43	87	0	7	110.4	104	23.9	3.8	93	2.5	3.6	.5
(Va 35 x Va 17) <sup>5/</sup>	87	0	13	107.9	101	24.2	2.8	96	2.3	2.6	.5
Va 4	84	1	16	117.2	110	23.4	3.8	95	2.5	3.3	1.5
Means	86	0	13	106.5	100	24.7	3.2	91	2.5	3.4	1.0

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> 1 = very poor to 5 = very good.

<sup>3/</sup> 1 = short to 5 = long.

<sup>4/</sup> Blacksburg only. Scored from 0 = none to 5 = severe blight.

<sup>5/</sup> Crosses of related lines given in parentheses.

Planted May 2, harvested October 10.

Plot size: 3' x 33'; Reps: 3.

Plants per acre: 19,800.

Grown at Kipps Farm.

Table 3. Average performance of single crosses of 15 inbred lines grown at Holland and Blacksburg, 1962. (Experiments 180 and 181).

Pedigree	Days to silk	% Ldg.	% Bro.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qu <sup>2/</sup>	Ears /100 plants	Ear ht. ft.	Husk <sup>3/</sup>
Va 41 x Va 31	77	0	12	120.3	97	23.7	3.3	94	2.8	3.2
Va 41 x Va 32	76	0	2	126.2	102	24.6	3.5	97	2.5	3.1
Va 41 x Va 17	77	0	2	140.2	113	25.1	4.0	97	2.9	3.0
Va 41 x Va 40	78	0	2	118.1	95	23.7	3.2	85	3.1	3.5
Va 41 x Ab 16	79	0	3	123.1	99	24.0	3.6	96	3.0	2.8
Va 41 x Va 18	78	0	6	114.5	92	24.4	3.8	92	2.6	2.7
Va 41 x Va 15	77	1	2	120.7	97	21.3	3.7	98	2.8	3.0
Va 41 x Va 27	77	0	4	129.4	104	23.7	3.6	97	2.9	2.6
Va 41 x Va 28	79	3	15	131.2	106	23.7	3.7	95	3.6	3.1
Va 41 x Va 29	81	0	5	145.9	118	23.3	3.0	89	3.0	3.6
Va 41 x Va 43	78	5	6	112.7	91	24.5	3.3	89	2.6	3.5
Va 20 x Va 31	74	0	2	121.5	98	19.8	3.2	98	2.9	3.1
Va 20 x Va 32	78	0	3	127.6	103	20.2	3.6	93	2.8	3.3
Va 20 x Va 17	76	0	5	135.4	109	23.0	3.8	94	3.1	2.9
Va 20 x Va 40	79	0	1	130.5	105	22.7	3.8	95	3.3	3.5
Va 20 x Ab 16	80	0	4	114.8	93	21.3	4.0	95	2.9	3.3
Va 20 x Va 18	77	0	1	123.1	99	20.2	3.7	92	2.7	3.0
Va 20 x Va 15	77	0	21	98.8	80	18.9	3.9	94	2.9	3.3
Va 20 x Va 27	78	0	2	126.5	102	19.8	3.6	96	3.0	3.2
VPI 646	80	1	9	126.8	102	22.2	3.0	86	3.5	3.0
Va 20 x Va 29	80	0	9	151.4	122	24.2	3.6	93	3.5	3.3
Va 20 x Va 43	78	2	1	133.6	108	23.3	3.6	95	2.9	3.8
Va 25 x Va 31	75	0	16	108.5	88	22.6	3.4	94	3.9	3.2
Va 25 x Va 32	74	1	14	109.0	88	22.4	3.5	94	3.0	3.0
Va 25 x Va 17	76	2	2	123.1	99	25.0	3.8	97	2.9	2.8
Va 25 x Va 40	80	0	4	122.1	98	23.6	3.7	91	3.5	3.1
Va 25 x Ab 16	79	0	9	117.4	95	21.8	3.5	94	3.2	2.8
Va 25 x Va 18	76	0	10	105.8	85	23.0	3.1	90	2.8	2.5
Va 25 x Va 15	75	0	22	120.2	97	19.6	4.1	96	3.0	3.1
Va 25 x Va 27	79	0	5	119.5	96	22.5	3.2	95	3.2	2.5
Va 25 x Va 28	79	3	33	112.8	91	24.6	3.6	86	3.5	3.1
Va 25 x Va 29	80	0	17	136.3	110	26.7	3.3	89	3.4	3.3
Va 25 x Va 43	77	0	2	127.0	103	23.9	3.7	92	2.6	3.5
Va 31 x Va 40	77	0	15	106.4	86	19.2	3.5	92	3.2	3.3
Va 31 x Ab 16	78	0	21	110.9	90	18.5	3.1	96	3.7	2.8
Va 31 x Va 18	76	0	15	110.8	89	20.6	3.2	89	2.8	3.0
Va 31 x Va 15	75	0	46	116.1	94	17.6	3.7	98	2.7	2.9
Va 31 x Va 27	78	0	23	109.1	88	19.9	3.5	90	2.7	3.0
Va 31 x Va 28	77	0	48	98.2	79	19.8	3.2	89	3.0	3.3
Va 31 x Va 29	79	2	17	138.4	112	27.1	3.5	95	3.2	3.6
Va 31 x Va 43	75	3	15	117.2	95	20.5	3.2	97	2.7	3.6
Va 32 x Va 40	77	0	7	116.4	94	21.2	3.9	94	3.0	3.5
Va 32 x Ab 16	78	0	7	115.7	93	20.3	3.2	96	2.8	3.1
Va 32 x Va 18	75	0	8	106.3	86	19.6	2.8	85	2.8	3.1
Va 32 x Va 15	75	1	42	112.9	91	21.4	3.5	91	3.0	3.0
Va 32 x Va 27	77	1	11	106.5	86	22.0	3.3	92	2.7	3.3
Va 32 x Va 28	76	3	33	106.9	86	18.1	3.4	90	3.3	3.2
Va 32 x Va 29	79	0	16	130.1	105	26.6	3.2	88	3.3	3.5
Va 32 x Va 43	76	1	6	122.4	99	19.3	3.2	92	2.8	3.8
Va 17 x Va 40	78	0	7	129.4	104	23.0	3.8	95	3.3	2.7
Va 17 x Ab 16	80	0	15	133.5	108	22.8	3.7	98	3.1	2.8
(Va 17 x Va 18) <sup>4/</sup>	81	3	8	105.7	85	21.1	3.2	91	3.0	2.6
Va 17 x Va 15	78	0	18	114.2	92	24.0	3.5	92	2.6	3.1

Table 3. Continued.

Pedigree	Days to silk	% Ldg.	% Bro.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qu <sup>2/</sup>	Ears /100 plants	Ear ht. ft.	Husk <sup>3/</sup>
Va 17 x Va 27	79	0	6	140.9	114	23.4	3.0	95	3.2	2.5
Va 17 x Va 28	82	20	6	117.5	95	20.2	3.0	92	3.0	3.3
Va 17 x Va 29	81	9	8	151.3	122	28.9	3.3	93	3.5	3.2
Va 17 x Va 43	79	2	6	141.2	114	22.7	3.6	95	3.0	3.4
Va 40 x Ab 16	81	0	11	112.9	91	21.1	3.7	96	3.1	3.5
Va 40 x Va 18	78	0	9	130.1	105	19.5	3.6	95	3.2	2.5
Va 40 x Va 15	80	2	25	113.7	92	20.6	3.6	95	3.0	3.5
Va 40 x Va 27	79	0	18	117.6	95	22.5	3.7	92	3.7	2.9
Va 40 x Va 28	81	0	21	112.4	91	21.9	3.6	88	3.9	3.5
Va 40 x Va 29	81	0	19	149.5	121	24.9	4.1	96	3.7	3.5
Va 40 x Va 43	78	0	12	132.2	107	21.5	3.6	93	3.1	4.0
Ab 16 x Va 18	78	0	5	123.3	100	21.4	3.6	96	3.0	2.9
Ab 16 x Va 15	79	0	37	108.7	88	20.5	3.8	93	3.0	3.0
Ab 16 x Va 27	81	1	21	115.2	93	22.7	3.2	95	3.3	3.0
Ab 16 x Va 28	80	0	30	127.0	103	22.1	3.2	95	3.3	3.3
Ab 16 x Va 29	82	0	13	145.4	117	24.3	3.4	87	3.4	3.3
Ab 16 x Va 43	80	0	11	131.7	106	22.8	3.7	99	3.1	3.8
Va 18 x Va 15	76	0	17	121.2	98	18.8	3.7	99	3.0	2.6
Va 18 x Va 27	78	1	3	127.6	103	21.4	3.0	94	3.0	2.3
Va 18 x Va 28	79	1	26	126.5	102	21.4	3.3	97	3.3	2.8
Va 18 x Va 29	79	3	7	147.4	119	25.8	3.7	96	3.0	2.7
Va 18 x Va 43	79	3	8	121.7	98	21.8	3.7	93	2.7	3.1
Va 15 x Va 27	77	0	20	117.0	94	20.5	3.7	96	3.0	3.1
Va 15 x Va 28	77	0	47	117.0	94	21.7	3.7	96	3.1	3.4
Va 15 x Va 29	79	0	45	141.2	114	22.8	3.5	97	3.4	3.1
Va 15 x Va 43	80	1	5	127.9	103	22.1	3.1	92	3.0	3.6
Va 27 x Va 28	81	0	29	109.0	88	19.0	3.1	79	3.6	3.0
Va 27 x Va 29	79	14	14	145.7	118	24.7	3.3	96	3.4	2.8
Va 27 x Va 43	80	1	7	133.0	107	24.0	3.0	91	3.1	3.4
Va 28 x Va 29	81	1	36	143.8	116	26.3	3.4	94	3.7	3.2
Va 28 x Va 43	79	12	22	146.0	118	22.5	4.1	94	3.4	3.5
Va 29 x Va 43	80	4	26	151.5	122	23.9	3.2	92	2.9	3.8
Va 35 x Va 41	75	0	5	124.7	101	23.9	3.7	95	2.9	2.7
Va 35 x Va 31	74	0	10	127.9	103	20.0	3.6	94	2.8	3.1
Va 35 x Va 32	76	0	1	117.9	95	20.4	3.0	90	3.8	3.0
Va 35 x Va 40	79	0	13	129.9	105	20.7	4.2	98	3.5	3.0
Va 35 x Ab 16	80	0	4	128.9	104	21.2	3.5	95	3.3	2.6
Va 35 x Va 15) <sup>4/</sup>	75	3	33	116.3	94	19.6	3.9	98	2.9	2.4
(Va 35 x Va 18) <sup>4/</sup>	78	0	9	110.0	89	19.9	3.3	95	2.9	2.2
Va 35 x Va 20	75	0	5	124.1	100	21.4	4.0	95	3.0	2.6
Va 35 x Va 25	75	1	7	119.4	96	21.4	3.8	96	3.0	2.2
Va 35 x Va 27	76	0	11	130.6	105	21.5	3.4	93	3.1	2.5
Va 35 x Va 28	80	1	18	120.8	98	23.1	3.5	94	3.3	2.6
Va 35 x Va 29	80	9	18	137.8	111	25.8	3.3	91	3.2	2.9
Va 35 x Va 43) <sup>4/</sup>	79	1	6	141.0	114	21.9	4.0	96	3.2	3.2
(Va 35 x Va 17) <sup>4/</sup>	79	2	6	111.5	90	21.9	3.3	97	2.7	2.6
Va 4	77	0	10	125.1	101	21.0	3.6	95	3.0	3.1
Mean	77	1	13	123.3	100	22.0	3.5	93	3.1	3.1

<sup>1/</sup> Relative to the mean yield of the test.<sup>2/</sup> 1 = very poor to 5 = very good.<sup>3/</sup> 1 = short to 5 = long.<sup>4/</sup> Crosses of related lines given in parentheses.

Table 4. Summary of the Performance of 15 Lines Tested in Single Crosses at Holland and Blacksburg, 1962. (Prepared from data in table 3).

Parent Line	Relative Yield															Mean relative yield
	Va 41	Va 20	Va 25	Va 31	Va 32	Va 17	Va 40	Ab 16	Va 18	Va 15	Va 27	Va 28	Va 29	Va 43	Va 35	
Va 41	--	--	--	97	102	113	95	99	92	97	104	106	118	91	101	101.3
" 20	--	--	--	98	103	109	105	93	99	80	102	--	122	108	100	101.7
" 25	--	--	--	88	88	99	98	95	85	97	96	91	110	103	96	95.5
" 31	12	2	16	--	--	--	86	90	89	94	88	79	112	95	103	93.3
" 32	2	3	14	--	--	--	94	93	86	91	86	86	105	99	95	94.0
<u>Percent Broken Plants</u> " 17	2	5	2	--	--	--	104	108	(85)	92	114	95	122	114	(90)	107.0
" 49	2	1	4	15	7	7	--	91	105	92	95	91	121	107	105	99.2
Ab 16	3	4	9	21	7	15	11	--	100	88	93	103	117	106	104	98.6
Va 18	6	1	10	15	8	(8)	9	5	--	98	103	102	119	98	(89)	98.0
" 15	2	21	22	46	42	18	25	37	17	--	94	94	114	103	94	94.9
" 27	4	2	5	23	11	6	18	21	3	20	--	88	118	107	105	99.5
" 28	15	--	33	48	33	6	21	30	26	47	29	--	116	118	98	97.5
" 29	5	9	17	17	16	8	19	13	7	45	14	36	--	122	111	116.2
" 43	6	1	2	15	6	6	12	11	8	5	7	22	26	--	114	106.1
" 35	5	5	7	10	1	(6)	13	4	(9)	33	11	18	18	6	--	102.2
Mean % broken	5.3	4.5	11.8	20.0	12.5	7.5	11.7	13.6	9.6	27.1	12.4	26.0	17.9	9.5	10.9	

Parent Line	Days to Silk															Mean days to silk
	Va 41	Va 20	Va 25	Va 31	Va 32	Va 17	Va 40	Ab 16	Va 18	Va 15	Va 27	Va 28	Va 29	Va 43	Va 35	
Va 41	--	--	--	77	76	77	78	79	78	77	77	79	81	78	75	77.7
" 20	--	--	--	74	78	76	79	80	77	77	78	--	80	78	75	77.5
" 25	--	--	--	75	74	76	80	79	76	75	79	79	80	77	75	77.1
" 31	2.8	2.9	2.9	--	--	--	77	78	76	75	78	77	79	75	74	76.3
" 32	2.6	2.8	3.0	--	--	--	77	78	75	75	77	76	79	76	76	76.4
<u>Ear Ht. Ft.</u> " 17	2.9	3.2	2.9	--	--	--	78	80	(81)	78	79	82	81	79	(79)	78.6
" 40	3.2	3.3	3.6	3.3	3.1	3.3	--	81	78	80	79	81	81	78	79	79.0
Ab 16	3.0	2.9	3.3	2.8	2.8	3.2	3.2	--	78	79	81	80	82	80	80	79.6
Va 18	2.7	2.8	2.8	2.8	2.8	(3.0)	3.3	3.0	--	76	78	79	79	79	(78)	77.4
" 15	2.8	2.9	3.1	2.8	3.0	2.7	3.0	3.1	3.1	--	77	77	79	80	75	77.1
" 27	2.9	3.1	3.3	2.8	2.8	3.3	3.8	3.3	3.0	3.0	--	81	79	80	76	78.5
" 28	3.7	--	3.5	3.1	3.3	3.0	3.9	3.3	3.3	3.2	3.7	--	81	79	80	79.3
" 29	3.0	3.5	3.4	3.3	3.3	3.5	3.8	3.4	3.0	3.4	3.4	3.8	--	80	80	80.1
" 43	2.7	2.9	2.7	2.8	2.8	3.1	3.2	3.2	2.8	3.0	3.2	3.4	2.9	--	79	78.4
" 35	2.9	3.0	3.0	2.8	2.8	(2.8)	3.5	3.3	(2.9)	2.9	3.2	3.3	3.3	3.3	--	77.0
Mean ear ht.	2.9	3.0	3.1	2.9	2.9	3.1	3.4	3.2	3.0	3.0	3.2	3.4	3.4	3.0	3.1	

Table 5. Relative yields at Holland and Blacksburg, and average performance of other characteristics at these two locations for all single crosses involving inbred lines listed in the first column, 1962.

Inbred No. of Line	No. of crosses	Relative yield <sup>1/</sup>		H <sub>2</sub> O at Harv.	Pct. Ldg.	Pct. Bro.	Days to silk	Ear ht. (ft.)	Ears /100 plants	Husk score <sup>2/</sup>	Qual. score <sup>2/</sup>	Leaf blight <sup>3/</sup>
		Holland	Blacksburg									
Va 15	14	88.1	103.6	20.7	0.6	27.1	77	3.0	95	3.1	3.2	1.6
Ab 16	14	97.1	100.1	21.8	0.1	13.6	80	3.2	95	3.1	3.5	1.3
Va 17	10	106.5	107.7	23.8	3.4	7.5	79	3.1	95	3.0	3.6	1.2
" 18	12	101.7	93.0	21.5	0.8	9.6	77	3.0	93	2.8	3.4	1.5
" 20	11	99.8	104.3	21.3	0.2	4.5	78	3.0	95	3.2	3.7	1.6
" 25	12	94.6	96.8	23.1	0.7	11.8	77	3.1	93	3.0	3.6	1.0
" 27	14	96.0	104.2	22.0	1.3	12.4	79	3.2	93	2.9	3.3	1.4
" 28	13	97.7	96.9	21.8	3.6	26.0	79	3.4	91	3.2	3.4	1.5
" 29	14	122.6	107.5	25.4	3.2	17.9	80	3.4	93	3.3	3.4	1.4
" 31	12	92.2	94.5	20.8	0.4	20.0	76	2.9	94	3.2	3.4	1.2
" 32	12	95.2	92.3	21.3	0.6	12.5	76	2.9	92	3.3	3.3	1.0
" 35	12	102.0	102.3	21.7	1.3	10.9	77	3.1	95	2.8	3.7	2.4
" 40	14	98.0	100.8	21.9	0.2	11.7	79	3.4	93	3.3	3.7	1.4
" 41	12	103.5	98.5	23.8	0.9	5.3	78	2.9	94	3.1	3.5	1.0
" 43	14	109.6	101.1	21.7	2.6	9.5	78	3.0	94	3.6	3.5	1.3

<sup>1/</sup> Compared to the average of all crosses of unrelated lines.

<sup>2/</sup> Scored from 1 = poorest to 5 = best.

<sup>3/</sup> Scored from 0 = no blight to 5 = severe blight.

Table 6. Performance of single crosses involving 21 lines, Holland, 1962.  
(Experiment 183)

Pedigree	Days to silk	% Ldg.	% Bro.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qu <sup>2/</sup>	Ears /100 plants	Ear ht. ft.	Husk <sup>3/</sup>
Va 41 x Va 42	69	0	1	122.5	95	18.7	3.5	85	3.8	3.0
Va 41 x Va 11C	69	0	1	138.5	107	20.4	4.0	92	3.5	2.6
Va 41 x Va 12	71	0	1	119.5	93	18.0	4.2	90	3.5	3.0
Va 41 x Va 13	66	0	0	136.0	105	19.2	4.3	95	3.3	2.8
Va 41 x Va 14	70	0	0	146.4	113	21.2	4.2	96	3.1	2.6
Va 41 x Va 19	70	0	0	90.8	70	17.4	3.7	61	3.3	3.0
Va 41 x Va 36	73	0	0	128.6	100	20.8	4.0	88	3.8	3.0
(Va 20 x Va 42) <sup>4/</sup>	69	0	1	27.0	21	16.6	2.7	35	3.3	3.0
(Va 20 x Va 11C) <sup>4/</sup>	71	0	0	112.3	87	18.3	4.0	91	3.1	3.0
(Va 20 x Va 12) <sup>4/</sup>	73	0	11	78.9	61	15.0	3.5	83	3.3	3.0
(Va 20 x Va 13) <sup>4/</sup>	71	1	10	110.8	86	16.3	3.5	95	3.6	2.8
(Va 20 x Va 14) <sup>4/</sup>	72	1	2	88.3	68	18.2	4.0	84	3.3	3.0
(Va 20 x Va 19) <sup>4/</sup>	76	0	2	19.2	15	16.2	3.3	20	2.8	3.0
(Va 20 x Va 36) <sup>4/</sup>	75	0	1	51.3	40	19.0	3.5	39	3.1	3.1
Va 25 x Va 42	68	0	18	130.0	101	18.7	4.2	93	4.0	3.0
Va 25 x Va 11C	68	0	5	140.2	109	17.8	4.0	95	3.8	3.0
Va 25 x Va 12	72	1	44	106.8	83	19.7	3.5	97	3.3	3.0
Va 25 x Va 13	67	1	3	126.1	98	19.6	4.0	95	3.6	3.0
Va 25 x Va 14	66	0	4	111.3	86	18.5	4.3	103	3.8	3.0
Va 25 x Va 19	70	0	1	126.1	98	17.1	3.7	48	3.3	3.0
Va 25 x Va 36	71	0	11	146.6	114	20.1	4.2	87	3.8	2.8
Va 31 x Va 42	66	0	1	124.7	97	16.6	3.3	93	3.5	3.0
Va 31 x Va 11C	68	0	5	127.4	99	17.4	3.8	100	3.3	2.8
Va 31 x Va 12	70	0	1	128.0	99	16.3	4.0	96	3.5	3.0
Va 31 x Va 13	67	0	2	132.1	102	17.2	4.0	90	3.6	2.8
Va 31 x Va 14	67	0	3	138.6	107	17.4	4.2	99	3.5	3.0
Va 31 x Va 19	67	0	14	134.0	108	15.2	2.7	92	3.5	3.0
Va 31 x Va 36	70	0	1	151.1	117	17.1	3.7	99	3.5	3.0
Va 32 x Va 42	64	0	0	96.1	74	17.2	2.7	74	3.5	3.0
Va 32 x Va 11C	65	0	5	126.4	98	17.0	4.0	97	3.3	2.8
Va 32 x Va 12	70	2	2	125.6	97	17.5	4.0	87	3.3	3.0
Va 32 x Va 13	69	4	2	132.8	103	17.3	3.3	95	3.6	3.0
Va 32 x Va 14	69	4	1	133.5	103	18.5	3.8	97	3.5	3.0
Va 32 x Va 19	69	0	4	133.9	104	16.0	2.2	85	3.3	2.6
Va 32 x Va 36	71	1	0	160.5	124	17.0	4.0	96	3.5	3.0
Va 17 x Va 42	72	0	1	131.9	102	21.6	4.0	93	3.5	3.0
Va 17 x Va 11C	66	2	2	154.2	120	18.8	4.5	102	3.5	2.8
Va 17 x Va 12	72	0	2	149.0	116	19.9	4.0	96	3.5	3.0
Va 17 x Va 13	73	22	1	143.4	111	19.9	3.5	93	3.8	2.5
Va 17 x Va 14	70	1	1	158.4	123	19.3	4.3	97	3.5	2.8
Va 17 x Va 19	72	0	1	136.8	106	18.3	3.5	95	3.5	2.8
(Va 17 x Va 36) <sup>4/</sup>	74	0	3	121.0	94	18.1	4.0	90	3.6	3.0
Va 40 x Va 42	73	0	1	101.8	79	19.1	3.3	72	3.8	3.0
Va 40 x Va 11C	73	0	4	136.8	106	19.4	4.3	97	3.8	3.0
Va 40 x Va 12	74	0	13	109.8	85	18.1	3.8	91	4.0	2.8
Va 40 x Va 13	73	2	1	134.5	104	18.5	3.8	92	4.5	3.0
Va 40 x Va 14	70	0	6	139.1	108	18.1	4.0	94	4.0	3.0
Va 40 x Va 19	73	0	1	97.7	76	15.6	3.5	69	4.0	3.0
Va 40 x Va 36	74	0	1	110.6	86	18.3	3.8	79	4.0	3.0
Ab 16 x Va 42	71	0	11	132.4	103	19.3	4.0	98	3.6	3.0
(Ab 16 x Va 11C) <sup>4/</sup>	70	0	14	114.9	89	19.4	3.8	99	3.6	3.0
Ab 16 x Va 12	73	0	27	128.0	99	17.8	4.2	100	3.5	3.0
Ab 16 x Va 13	71	0	4	146.7	114	19.0	4.0	92	4.0	2.8
Ab 16 x Va 14	71	0	30	132.1	102	19.3	4.0	96	3.5	3.0
Ab 16 x Va 19	71	0	9	134.7	104	16.2	3.7	94	3.6	3.0
Ab 16 x Va 36	73	0	4	150.3	117	18.4	4.2	96	3.6	3.1

Table 6. Continued.

Pedigree	Days to silk	% Ldg.	% Bro.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qu <sup>2/</sup>	Ears /100 plants	Ear hh ft.	Husk <sup>3/</sup>
Va 15 x Va 42	72	0	4	54.7	42	16.2	3.3	59	3.1	3.0
Va 15 x Va 11C	69	0	10	126.5	98	17.6	4.0	103	3.6	2.8
Va 15 x Va 12	73	0	40	72.7	56	15.5	3.5	92	3.0	3.0
Va 15 x Va 13	72	0	5	99.9	77	15.6	3.0	96	3.0	2.6
Va 15 x Va 14	72	0	12	101.3	79	18.2	3.8	95	3.1	3.0
Va 15 x Va 19	71	0	20	68.1	53	15.6	3.5	74	3.3	3.0
Va 15 x Va 36	73	0	1	115.5	90	16.4	4.3	95	3.5	3.0
Va 18 x Va 42	69	0	0	133.8	104	17.9	3.8	93	3.5	3.0
Va 18 x Va 11C	70	2	13	128.7	100	18.6	3.7	98	3.5	2.6
Va 18 x Va 12	71	0	1	141.7	110	15.7	4.0	94	3.5	3.0
Va 18 x Va 13	68	0	4	147.5	114	17.0	3.7	99	4.0	2.8
Va 18 x Va 14	70	0	0	130.4	101	17.6	4.0	97	3.5	3.0
Va 18 x Va 19	70	0	1	150.6	117	16.3	3.0	96	3.1	2.6
(Va 18 x Va 36)	72	0	1	112.6	87	16.9	4.0	90	3.5	3.0
Va 27 x Va 42	70	0	6	132.2	102	18.9	3.7	99	3.6	3.0
Va 27 x Va 11C	67	2	18	133.4	103	18.6	3.8	99	3.6	2.8
Va 4	66	0	2	134.2	104	18.7	3.7	96	3.5	3.0
Va 27 x Va 13	72	0	19	136.0	105	20.4	3.5	94	4.0	2.6
Va 219	72	0	6	145.7	113	18.3	3.7	93	4.0	2.8
Va 27 x Va 19	71	0	38	119.2	92	17.0	3.7	88	4.0	3.0
Va 27 x Va 36	72	0	4	151.8	118	17.9	4.2	94	3.8	3.0
Va 28 x Va 42	70	0	17	159.1	123	19.5	3.5	97	4.3	3.0
Va 28 x Va 11C	70	4	18	145.6	113	18.5	4.2	101	4.3	3.0
Va 28 x Va 12	71	0	27	147.8	115	17.9	3.5	99	4.1	2.8
Va 28 x Va 13	73	23	21	135.7	105	19.0	4.2	93	4.5	3.0
Va 28 x Va 14	71	26	20	138.4	107	19.6	4.0	87	4.5	3.0
Va 28 x Va 19	71	0	43	149.8	116	16.2	3.7	93	4.0	2.8
Va 28 x Va 36	71	1	13	162.4	126	17.9	4.0	96	3.6	3.0
Va 29 x Va 42	70	0	51	160.2	124	21.8	3.2	93	3.6	3.0
Va 29 x Va 11C	73	9	39	168.3	130	22.4	3.5	98	4.0	3.0
Va 29 x Va 12	73	0	27	151.5	117	22.0	4.0	96	3.6	3.0
Va 29 x Va 13	74	8	22	164.5	128	20.6	3.7	96	4.5	3.0
Va 29 x Va 14	73	4	23	166.3	129	22.3	3.5	95	4.3	3.0
Va 29 x Va 19	73	13	20	148.5	115	19.0	3.5	95	3.8	3.0
Va 29 x Va 36	74	5	17	179.4	139	20.9	4.2	96	4.1	3.0
Va 43 x Va 42	70	0	22	153.1	119	18.6	4.0	97	3.5	3.0
Va 43 x Va 11C	70	0	10	137.6	107	19.2	4.0	91	3.5	3.0
Va 43 x Va 12	73	0	6	153.6	119	19.0	4.3	99	4.0	3.0
Va 43 x Va 13	72	7	16	158.6	123	19.3	4.2	98	4.1	3.0
Va 43 x Va 14	72	1	1	159.4	124	21.5	4.2	99	4.0	3.0
Va 43 x Va 19	73	0	6	140.2	109	17.3	4.0	85	3.6	3.0
Va 43 x Va 36	73	0	0	125.7	97	99.2	3.8	92	3.3	3.3
Va 148C	72	1	2	137.9	107	19.0	3.7	86	4.0	2.8
VPI 646	73	0	4	154.1	119	19.5	3.5	98	4.6	3.0
Mean	70	1	9	128.9	100	18.3	3.7	90	3.6	2.9

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> 1 = very poor to 5 = very good.

<sup>3/</sup> 1 = short to 5 = long.

<sup>4/</sup> Crosses of related lines given in parentheses.

Planted April 25; harvested September 26-October 1.

Plot size: 3' x 33'; Reps: 3.

Plants per acre: 19,800.

Cooperator: M. W. Alexander, Tidewater Research Station



Table 7. Performance of single crosses involving 21 lines, Warsaw, 1962.  
(Experiment 184)

Pedigree	Days to silk	% Ldg.	% Bro.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qu <sup>2/</sup>	Ears /100 plants	Ear ht. ft.	Husk <sup>3/</sup>
Va 41 x Va 42	71	1	10	98.9	102	19.0	2.8	78	3.2	2.3
Va 41 x Va 11C	70	0	7	96.8	100	20.0	3.5	86	3.4	2.1
Va 41 x Va 12	72	0	18	95.6	99	19.0	3.2	91	3.1	2.6
Va 41 x Va 13	72	3	18	92.5	96	18.2	3.3	80	3.1	1.8
Va 41 x Va 14	71	1	20	79.0	82	20.0	3.3	71	3.0	2.3
Va 41 x Va 19	70	1	13	67.0	69	17.3	2.8	61	3.0	2.1
Va 41 x Va 36	75	0	2	97.9	101	21.6	3.0	82	3.7	3.3
(Va 20 x Va 42) <sup>4/</sup>	77	0	3	47.4	49	17.1	2.5	47	3.2	2.3
(Va 20 x Va 11C) <sup>4/</sup>	71	0	3	87.1	90	18.2	3.3	77	3.0	2.6
(Va 20 x Va 12) <sup>4/</sup>	76	0	9	57.8	60	16.9	3.0	65	3.4	3.0
(Va 20 x Va 13) <sup>4/</sup>	74	3	14	76.7	79	17.0	2.7	81	3.4	2.1
(Va 20 x Va 14) <sup>4/</sup>	75	3	8	64.0	66	17.9	3.8	73	3.3	2.5
(Va 20 x Va 19) <sup>4/</sup>	80	0	0	24.8	26	17.8	2.5	35	2.5	2.5
(Va 20 x Va 36) <sup>4/</sup>	78	1	4	51.8	54	19.1	2.8	52	3.4	2.8
Va 25 x Va 42	67	2	25	98.7	102	20.4	3.7	89	3.1	2.5
Va 25 x Va 11C	67	10	34	95.3	99	19.5	3.2	98	3.2	2.3
Va 25 x Va 12	70	1	41	97.5	101	18.1	3.8	92	3.1	3.6
Va 25 x Va 13	69	1	39	103.7	107	19.1	3.3	93	3.2	2.3
Va 25 x Va 14	66	4	28	76.4	79	18.2	3.7	80	3.3	2.6
Va 25 x Va 19	69	2	22	81.8	85	17.3	3.0	82	2.9	2.1
Va 25 x Va 36	71	6	17	119.2	123	21.7	3.8	97	3.3	2.3
Va 31 x Va 42	68	0	12	95.1	98	18.2	2.2	85	3.3	2.3
Va 31 x Va 11C	67	0	5	93.1	96	18.7	2.8	92	2.8	3.0
Va 31 x Va 12	71	1	25	105.7	109	17.7	3.0	93	3.2	3.6
Va 31 x Va 13	69	10	10	109.7	113	18.5	3.7	87	3.5	2.3
Va 31 x Va 14	70	1	14	107.8	111	18.3	3.3	87	3.4	2.8
Va 31 x Va 19	68	0	13	84.6	87	17.1	2.0	73	2.9	2.0
Va 31 x Va 36	71	3	27	120.4	124	18.4	2.7	92	3.2	3.5
Va 32 x Va 42	71	1	1	79.9	83	18.9	2.7	79	3.2	2.3
Va 32 x Va 11C	66	2	8	84.4	87	17.5	2.7	86	3.0	2.5
Va 32 x Va 12	71	3	13	96.4	100	17.8	2.8	82	3.3	3.0
Va 32 x Va 13	71	15	14	99.3	103	20.5	3.2	91	3.5	1.8
Va 32 x Va 14	70	3	4	95.3	99	19.6	3.5	90	3.3	3.0
Va 32 x Va 19	70	0	4	78.4	81	16.3	1.5	80	3.0	1.8
Va 32 x Va 36	73	4	9	116.4	120	18.0	3.0	94	3.4	3.5
Va 17 x Va 42	72	4	3	120.2	124	20.4	3.0	91	3.4	3.0
Va 17 x Va 11C	70	16	23	108.1	112	19.3	4.3	96	3.4	2.8
Va 17 x Va 12	73	6	16	131.7	136	19.7	3.8	94	3.5	3.3
Va 17 x Va 13	72	6	33	109.9	114	20.5	4.2	95	3.6	2.1
Va 17 x Va 14	72	5	14	111.6	115	18.8	3.8	92	3.5	3.3
Va 17 x Va 19	71	3	6	88.5	92	18.8	2.7	74	3.3	2.3
(Va 17 x Va 36) <sup>4/</sup>	78	13	8	80.3	83	19.8	2.8	77	3.6	3.5
Va 40 x Va 42	75	1	3	74.9	77	18.8	3.0	74	3.6	3.5
Va 40 x Va 11C	72	4	15	111.0	115	20.5	4.2	92	3.5	2.6
Va 40 x Va 12	76	0	13	61.5	64	18.3	2.3	61	3.8	3.3
Va 40 x Va 13	77	5	27	93.2	96	18.8	3.0	85	4.4	2.8
Va 40 x Va 14	72	4	19	111.9	116	18.8	3.8	93	3.7	2.8
Va 40 x Va 19	75	1	9	71.2	74	18.1	2.0	75	3.4	2.1
Va 40 x Va 36	75	7	10	75.0	78	19.6	3.0	81	4.0	4.0
Ab 16 x Va 42	73	2	41	98.1	101	18.6	3.5	90	3.2	3.3
(Ab 16 x Va 11C) <sup>4/</sup>	73	3	50	88.6	92	18.4	3.2	92	3.1	3.0
Ab 16 x Va 12	74	3	51	106.2	110	16.5	3.8	97	3.2	3.8
Ab 16 x Va 13	74	5	23	119.6	124	18.8	3.7	95	3.8	2.6
Ab 16 x Va 14	72	5	34	112.2	116	17.9	4.2	97	3.6	3.5
Ab 16 x Va 19	74	1	42	86.2	89	19.6	3.5	85	3.3	3.0
Ab 16 x Va 36	74	7	23	119.3	123	18.2	3.8	97	3.5	3.8

Table 7. Continued.

Pedigree	Days to silk	% Ldg.	% Bro.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qu <sup>2/</sup>	Ears /100 plants	Ear ht. ft.	Husk <sup>3/</sup>
Va 15 x Va 42	74	9	40	67.0	69	16.2	2.8	83	3.2	3.1
Va 15 x Va 11C	68	3	33	104.0	108	17.1	3.8	97	3.2	3.0
Va 15 x Va 12	74	3	48	60.4	62	15.9	2.8	85	3.0	3.1
Va 15 x Va 13	75	3	33	76.2	79	17.7	2.7	95	3.3	2.1
Va 15 x Va 14	71	3	37	86.2	89	16.5	3.8	95	3.3	3.5
Va 15 x Va 19	73	2	14	58.7	61	15.8	2.5	67	3.1	2.1
Va 15 x Va 36	73	1	13	99.2	103	16.1	3.2	91	3.6	3.3
Va 18 x Va 42	71	2	25	102.5	106	18.3	3.0	85	3.2	2.5
Va 18 x Va 11C	68	3	21	103.0	107	17.2	4.3	97	3.5	2.6
Va 18 x Va 12	72	0	17	115.7	120	16.8	3.3	94	3.4	3.0
Va 18 x Va 13	73	3	38	102.4	106	18.7	3.3	90	3.8	1.8
Va 18 x Va 14	71	6	31	89.5	93	17.4	3.7	81	3.6	2.8
Va 18 x Va 19	73	1	2	70.7	73	17.7	2.7	71	3.4	2.8
(Va 18 x Va 36) <sup>4/</sup>	76	1	9	76.3	79	17.4	2.7	91	3.4	3.0
Va 27 x Va 42	69	0	22	108.6	112	19.5	2.7	90	3.6	2.6
Va 27 x Va 11C	69	8	35	116.2	120	19.3	3.5	95	3.4	2.6
Va 4 (double cross)	67	1	11	96.3	100	18.2	3.2	86	3.3	2.5
Va 27 x Va 13	74	12	39	109.5	113	20.0	2.8	88	3.7	2.1
Va 219 (double cross)	71	7	20	108.1	112	17.6	3.2	93	3.6	3.3
Va 27 x Va 19	72	4	28	90.2	93	18.2	2.5	72	3.4	2.0
Va 27 x Va 36	74	7	40	101.3	105	19.9	3.2	83	3.8	2.7
Va 28 x Va 42	69	3	29	120.5	125	19.6	3.3	91	3.7	3.5
Va 28 x Va 11C	70	8	50	122.8	127	18.3	3.5	95	3.6	3.1
Va 28 x Va 12	72	1	25	120.9	125	18.2	3.5	95	3.8	3.6
Va 28 x Va 13	73	8	68	110.9	115	19.6	3.2	90	4.0	2.5
Va 28 x Va 14	72	13	32	114.4	118	19.1	3.3	89	3.7	3.3
Va 28 x Va 19	72	9	59	97.0	100	17.8	2.5	91	3.4	2.8
Va 28 x Va 36	72	4	50	121.4	126	17.4	3.5	96	3.7	3.3
Va 29 x Va 42	71	6	60	124.3	129	20.5	2.7	96	3.4	2.8
Va 29 x Va 11C	71	2	91	112.9	117	21.9	3.7	91	3.8	2.8
Va 29 x Va 12	74	3	69	107.5	111	22.4	2.5	90	3.5	3.1
Va 29 x Va 13	73	9	54	121.6	126	20.1	3.7	83	3.8	2.0
Va 29 x Va 14	74	2	66	115.3	119	19.9	3.5	90	3.6	3.3
Va 29 x Va 19	73	7	45	114.5	118	18.9	2.3	88	3.3	1.8
Va 29 x Va 36	75	11	34	129.6	134	22.4	3.2	100	3.8	3.0
Va 43 x Va 42	72	3	44	123.0	127	18.5	3.7	88	3.3	3.5
Va 43 x Va 11C	73	7	33	100.7	104	19.3	4.2	81	3.2	4.3
Va 43 x Va 12	73	6	33	113.7	118	18.5	3.7	97	3.3	4.3
Va 43 x Va 13	74	12	35	118.0	122	19.2	3.8	92	3.8	3.6
Va 43 x Va 14	73	13	32	128.2	133	19.4	4.3	93	3.5	4.3
Va 43 x Va 19	75	2	22	82.1	85	17.8	2.7	71	3.4	3.0
Va 43 x Va 36	75	4	5	86.3	89	20.3	2.8	79	3.3	4.6
Va 148C (double cross)	72	3	16	90.2	93	19.4	3.2	91	3.8	2.1
VPI 646 (double cross)	72	9	18	100.7	104	19.1	3.5	84	3.9	2.5
Mean	72	4	24	96.7	100	18.6	3.1	85	3.4	2.8

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> 1 = very poor to 5 = very good.

<sup>3/</sup> 1 = short to 5 = long.

<sup>4/</sup> Crosses of related lines are given in parentheses.

Planted May 4, harvested September 25, October 12.

Plot size: 3' x 33'; Reps: 3.

Plants per acre: 22,000.

Cooperators: H. M. Camper and W. L. Sisson, Eastern Virginia Research Station.

Table 8. Average performance of single crosses involving 21 lines, Holland and Warsaw, 1962. (Experiments 183 and 184)

Pedigree	Days to silk	% Ldg.	% Bro.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qu <sup>2/</sup>	Ears /100 plants	Ear ht. ft.	Husk <sup>3/</sup>
Va 41 x Va 42	70	0	5	110.7	98	18.8	3.1	81	3.5	2.6
Va 41 x Va 11C	69	0	4	117.6	104	20.2	3.7	89	3.4	2.4
Va 41 x Va 12	71	0	9	107.5	95	18.5	3.7	90	3.3	2.8
Va 41 x Va 13	69	1	9	114.2	101	18.7	3.8	87	3.2	2.3
Va 41 x Va 14	70	0	10	112.7	100	20.6	3.7	83	3.1	2.5
Va 41 x Va 19	70	0	6	78.9	70	17.3	3.2	61	3.2	2.5
Va 41 x Va 36	74	0	1	113.2	100	21.2	3.5	85	3.7	3.1
(Va 20 x Va 42) <sup>4/</sup>	73	0	2	37.2	33	16.8	2.6	41	3.3	2.6
(Va 20 x Va 11C) <sup>4/</sup>	71	0	1	99.7	88	18.2	3.6	84	3.1	2.8
(Va 20 x Va 12) <sup>4/</sup>	74	0	10	68.3	61	15.9	3.2	74	3.3	3.0
(Va 20 x Va 13) <sup>4/</sup>	72	2	12	93.7	83	16.6	3.1	88	3.5	2.5
(Va 20 x Va 14) <sup>4/</sup>	73	2	5	76.1	68	18.0	3.9	78	3.3	2.7
(Va 20 x Va 19) <sup>4/</sup>	78	0	1	22.0	20	17.0	2.9	27	2.6	2.7
(Va 20 x Va 36) <sup>4/</sup>	76	0	2	51.5	46	19.0	3.1	45	3.2	3.0
Va 25 x Va 42	67	1	21	114.3	101	19.5	3.9	91	3.5	2.7
Va 25 x Va 11C	67	5	19	117.7	104	18.6	3.6	96	3.5	2.6
Va 25 x Va 12	71	1	42	102.1	91	18.9	3.6	94	3.2	3.3
Va 25 x Va 13	68	1	21	114.9	102	19.3	3.6	94	3.4	2.6
Va 25 x Va 14	66	2	16	93.8	83	18.3	4.0	91	3.5	2.8
Va 25 x Va 19	69	1	11	103.9	92	17.2	3.3	83	3.1	2.5
Va 25 x Va 36	71	3	14	132.9	118	20.9	4.0	92	3.5	2.5
Va 31 x Va 42	67	0	6	109.9	97	17.4	2.7	89	3.4	2.6
Va 31 x Va 11C	67	0	5	110.2	98	18.0	3.3	96	3.1	2.9
Va 31 x Va 12	70	0	13	116.8	104	17.0	3.5	94	3.3	3.3
Va 31 x Va 13	68	5	6	120.9	107	17.8	3.8	88	3.5	2.5
Va 31 x Va 14	68	0	8	123.2	109	17.8	3.7	93	3.4	2.9
Va 31 x Va 19	67	0	13	109.3	97	16.1	2.3	83	3.2	2.5
Va 31 x Va 36	70	1	14	135.7	120	17.7	3.2	95	3.3	3.2
Va 32 x Va 42	67	0	0	88.0	78	18.0	2.7	76	3.3	2.6
Va 32 x Va 11C	65	1	6	105.4	93	17.2	3.3	91	3.1	2.6
Va 32 x Va 12	70	2	7	111.0	98	17.6	3.4	84	3.3	3.0
Va 32 x Va 13	70	9	8	116.0	103	18.9	3.2	93	3.6	2.4
Va 32 x Va 14	69	3	2	114.4	101	19.0	3.6	93	3.4	3.0
Va 32 x Va 19	69	0	4	106.1	94	16.1	1.8	82	3.1	2.2
Va 32 x Va 36	72	2	4	138.4	123	17.5	3.5	95	3.4	3.2
Va 17 x Va 42	72	2	2	126.0	112	21.0	3.5	92	3.4	3.0
Va 17 x Va 11C	68	9	12	131.1	116	19.0	4.4	99	3.4	2.8
Va 17 x Va 12	72	3	9	140.3	124	19.8	3.9	95	3.5	3.1
Va 17 x Va 13	72	14	17	126.6	112	20.2	3.8	94	3.7	2.3
Va 17 x Va 14	71	3	7	135.0	120	19.0	4.0	94	3.5	3.0
Va 17 x Va 19	71	1	3	112.6	100	18.5	3.1	84	3.4	2.5
(Va 17 x Va 36) <sup>4/</sup>	76	6	5	100.6	89	18.9	3.4	83	3.6	3.2
Va 40 x Va 42	74	0	2	88.3	78	18.9	3.1	73	3.7	3.2
Va 40 x Va 11C	72	2	9	123.9	110	19.9	4.2	94	3.7	2.8
Va 40 x Va 12	75	0	13	85.6	76	18.2	3.0	76	3.9	3.0
Va 40 x Va 13	75	3	14	113.8	109	18.6	3.4	88	4.4	2.9
Va 40 x Va 14	71	2	12	125.5	111	18.4	3.9	93	3.8	2.9
Va 40 x Va 19	74	0	5	84.4	75	16.8	2.7	72	3.7	2.5
Va 40 x Va 36	74	3	5	92.8	82	18.9	3.4	80	4.0	3.5
Ab 16 x Va 42	72	1	26	115.2	102	18.9	3.7	94	3.4	3.1
(Ab 16 x Va 11C) <sup>4/</sup>	71	1	32	101.7	90	18.9	3.5	95	3.4	3.0
Ab 16 x Va 12	73	1	39	117.1	104	17.1	4.0	98	3.3	3.4
Ab 16 x Va 13	72	2	13	133.1	118	18.9	3.8	93	3.9	2.7
Ab 16 x Va 14	71	2	32	122.1	108	18.6	4.1	96	3.5	3.2
Ab 16 x Va 19	72	0	25	110.4	98	17.9	3.6	89	3.5	3.0
Ab 16 x Va 36	73	3	13	134.8	120	18.3	4.0	96	3.6	3.5

Table 8. Continued.

Pedigree	Days to silk	% Ldg.	% Bro.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qu <sup>2/</sup>	Ears /100 plants	Ear ht. ft.	Husk <sup>3/</sup>
Va 15 x Va 42	73	4	22	60.8	54	16.2	3.0	71	3.2	3.0
Va 15 x Va 11C	68	1	21	115.2	102	17.3	3.9	100	3.4	2.9
Va 15 x Va 12	73	1	44	66.5	59	15.7	3.1	88	3.0	3.0
Va 15 x Va 13	73	1	19	88.0	78	16.6	2.8	95	3.1	2.4
Va 15 x Va 14	71	1	24	93.7	83	17.3	3.8	95	3.2	3.2
Va 15 x Va 19	72	1	17	63.4	56	15.7	3.0	70	3.2	2.5
Va 15 x Va 36	73	0	7	107.3	95	16.2	3.7	93	3.5	3.1
Va 18 x Va 42	70	1	12	118.1	105	18.1	3.4	89	3.3	2.7
Va 18 x Va 11C	69	2	17	115.8	103	17.9	4.0	97	3.5	2.6
Va 18 x Va 12	71	0	9	128.7	114	16.2	3.6	94	3.4	3.0
Va 18 x Va 13	70	1	21	124.9	111	17.8	3.5	94	3.9	2.3
Va 18 x Va 14	70	3	15	109.9	97	17.5	3.8	89	3.5	2.9
Va 18 x Va 19	71	0	1	110.6	98	17.0	2.8	83	3.2	2.7
(Va 18 x Va 36) <sup>4/</sup>	74	0	5	94.4	84	17.1	3.3	90	3.4	3.0
Va 27 x Va 42	69	0	14	120.4	107	19.2	3.2	94	3.6	2.8
Va 27 x Va 11C	68	5	26	124.8	111	18.9	3.6	97	3.5	2.7
Va 4 (double cross)	66	0	6	115.2	102	18.4	3.4	91	3.4	2.7
Va 27 x Va 13	73	6	29	122.7	109	20.2	3.1	91	3.8	2.4
Va 219 (double cross)	71	3	13	126.9	112	17.9	3.4	93	3.8	3.0
Va 27 x Va 19	71	2	33	104.7	93	17.6	2.6	80	3.7	2.5
Va 27 x Va 36	73	3	22	126.5	112	18.9	3.7	88	3.8	2.8
Va 28 x Va 42	69	1	23	139.8	124	19.5	3.4	94	4.0	3.2
Va 28 x Va 11C)	70	6	34	134.2	119	18.4	3.8	98	4.0	3.0
Va 28 x Va 12	71	0	26	134.3	119	18.0	3.5	97	4.0	3.2
Va 28 x Va 13	73	15	44	123.3	109	19.3	3.7	91	4.2	2.7
Va 28 x Va 14	71	19	26	126.4	112	19.3	3.6	88	4.1	3.1
Va 28 x Va 19	71	4	51	123.4	109	17.0	3.1	92	3.7	2.8
Va 28 x Va 36	71	2	31	141.9	126	17.6	3.7	96	3.7	3.1
Va 29 x Va 42	70	3	55	142.2	126	21.1	2.9	94	3.5	2.9
Va 29 x Va 11C	72	5	65	140.6	125	22.1	3.6	94	3.9	2.9
Va 29 x Va 12	73	1	48	129.5	115	22.2	3.2	93	3.6	3.0
Va 29 x Va 13	73	8	38	143.0	127	20.3	3.7	89	4.1	2.5
Va 29 x Va 14	73	3	44	140.8	125	21.1	3.5	92	4.0	3.1
Va 29 x Va 19	73	10	32	131.5	117	18.9	2.9	91	3.6	2.4
Va 29 x Va 36	74	8	25	154.5	137	21.6	3.7	98	4.0	3.0
Va 43 x Va 42	71	1	33	138.0	122	18.5	3.8	92	3.4	3.2
Va 43 x Va 11C	71	3	21	119.1	106	19.2	4.1	86	3.3	3.6
Va 43 x Va 12	73	3	19	133.6	118	18.7	4.0	98	3.6	3.6
Va 43 x Va 13	73	9	25	138.3	123	19.2	4.0	95	4.0	3.3
Va 43 x Va 14	72	7	16	143.8	128	20.4	4.2	96	3.7	3.6
Va 43 x Va 19	74	1	14	111.1	99	17.5	3.3	78	3.5	3.0
Va 43 x Va 36	74	2	2	106.0	94	19.7	3.3	85	3.3	4.0
Va 148C (double cross)	72	2	9	114.0	101	19.2	3.4	88	3.9	2.5
VPU 646 (double cross)	72	4	11	127.4	113	19.3	3.5	91	4.2	2.7
Mean	71	2	17	112.8	100	18.4	3.4	88	3.5	2.9

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> 1 = very poor to 5 = very good.

<sup>3/</sup> 1 = short to 5 = long.

<sup>4/</sup> Crosses of related lines given in parentheses.

Table 9. Summary of yield and broken plant performance of single crosses tested at Holland and Warsaw in 1962. (Prepared from data in table 8. Performance of crosses of related lines given in parentheses.)

		<u>Relative Yield</u>						
		Va 42	Va 11	Va 12	Va 13	Va 14	Va 19	Va 36
Va	41	98	104	95	101	100	70	100
"	20	(33)	(88)	(61)	(83)	(68)	(20)	(46)
"	25	101	104	91	102	83	92	118
"	31	97	98	104	107	109	97	120
"	32	78	93	98	103	101	94	123
"	17	112	116	124	112	120	100	(89)
"	40	78	110	76	109	111	75	82
Ab	16	102	(90)	104	118	108	98	120
Va	15	54	102	59	78	83	56	95
"	18	105	103	114	111	97	98	(84)
"	27	107	111	--	109	--	93	112
"	28	124	119	119	109	112	109	126
"	29	126	115	115	127	125	117	137
"	43	122	106	118	123	128	99	94

		<u>Percent Broken Plants</u>						
		Va 42	Va 11	Va 12	Va 13	Va 14	Va 19	Va 36
Va	41	5	4	9	9	10	6	1
"	20	(2)	(1)	(10)	(12)	(5)	(1)	(2)
"	25	21	19	42	21	16	11	14
"	31	6	5	13	6	8	13	14
"	32	0	6	7	8	2	4	4
"	17	2	12	9	17	7	3	(5)
"	40	2	9	13	14	12	5	5
Ab	16	26	(32)	39	13	32	25	13
Va	15	22	21	44	19	24	17	7
"	18	12	17	9	21	15	1	(5)
"	27	14	26	--	29	--	33	31
"	28	23	34	26	44	26	51	31
"	29	55	65	48	38	44	32	25
"	43	33	21	19	25	16	14	2

Table 10. Relative yields at Holland and Warsaw, and average performance of other characteristics at these two locations for all single crosses involving inbred lines listed in the first column, 1962.

Inbred Line	No. of crosses	Relative yield <sup>1/</sup>		H <sub>2</sub> O at Harv.	Pct. Ldg.	Pct. Bro.	Days to silk	Ear ht. (ft.)	Ears /100 plants	Husk score <sup>2/</sup>	Qual. score <sup>2/</sup>
		Holland	Warsaw								
Va 15	7	68.2	78.5	16.4	1.3	22.0	72	3.3	87	2.9	3.3
Ab 16	6	102.7	106.3	18.3	1.5	24.6	72	3.6	94	3.2	3.9
Va 17	6	109.0	111.1	19.6	5.3	8.3	71	3.5	93	2.8	3.8
" 18	6	103.9	96.9	17.4	0.7	12.5	70	3.5	91	2.8	3.5
" 25	7	94.9	95.6	19.0	2.0	20.5	68	3.4	92	2.8	3.7
" 27	5	100.3	104.4	19.0	3.8	24.8	71	3.7	90	2.7	3.2
" 28	7	110.9	114.8	18.4	6.7	33.5	71	4.0	94	3.1	3.5
" 29	7	121.5	117.3	21.0	5.4	43.8	73	3.8	93	2.9	3.4
" 31	7	100.4	101.4	17.4	0.9	9.3	68	3.4	91	2.9	3.2
" 32	7	96.8	92.4	17.8	2.4	5.2	69	3.4	88	2.8	3.1
" 40	7	88.7	85.2	18.5	1.4	8.6	74	3.9	82	3.0	3.4
" 41	7	94.1	89.1	19.3	0.1	6.3	70	3.4	82	2.6	3.5
" 43	7	108.8	116.8	19.0	3.7	18.5	73	3.6	90	3.5	3.8
Va 11	12	103.6	103.6	18.9	3.3	19.9	69	3.5	95	2.9	3.8
" 12	12	95.5	100.6	18.2	1.0	23.2	72	3.5	92	3.2	3.5
" 13	13	102.9	104.6	18.9	5.8	20.3	72	3.8	92	2.6	3.6
" 14	12	102.9	101.8	18.9	3.8	17.7	70	3.6	92	2.9	3.8
" 19	13	93.9	81.9	17.2	2.2	16.5	71	3.4	81	2.6	2.9
" 36	11	107.5	107.2	19.0	2.7	12.5	73	3.7	91	3.5	3.6
" 42	13	93.7	100.2	18.9	1.4	17.0	70	3.5	87	3.0	3.3

<sup>1/</sup> Compared to the average of all crosses of unrelated lines.

<sup>2/</sup> 1 = poorest to 5 = best.

Table 11. Performance of single crosses involving new lines related to Hy, C103 and T8, Holland, 1962. (Experiment 185)

Pedigree	Days to silk	% Ldg.	% Bro.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Our <sup>2/</sup>	Ears /100 plants	Ear ht. ft.	Husk <sup>3/</sup>
Va 31 x Hy 3	70	0	3	117.1	83	16.7	3.7	96	4.0	3.0
Va 31 x Va 40	71	0	3	127.7	91	17.9	3.8	98	4.0	3.0
Va 31 x 21188	69	0	11	97.3	69	14.9	3.8	101	3.3	2.8
Va 31 x Va 12	70	2	2	124.1	88	17.8	4.2	98	3.5	3.0
Va 31 x Va 26-154	68	0	1	129.8	92	17.4	3.8	102	3.6	3.0
Va 31 x 21344	71	0	0	137.9	98	17.7	3.8	98	3.5	2.8
Va 31 x Va 44	70	0	2	131.9	94	20.7	4.0	98	3.5	2.8
Va 31 x Va 33	71	9	2	144.3	103	19.0	3.7	99	4.0	2.6
Va 31 x Va 35-164	67	1	1	139.7	99	17.9	4.0	97	3.5	2.8
Va 31 x Va 35-165	69	4	2	147.8	105	17.9	4.0	93	3.5	2.8
Va 31 x Va 35-169	71	2	0	155.8	111	18.4	4.2	99	4.0	2.8
Va 31 x C103	69	0	1	152.1	108	17.4	4.3	99	3.8	3.0
Va 31 x 21364	72	0	3	153.1	109	19.4	4.3	102	4.0	3.0
Va 31 x 21370	71	0	0	155.6	111	15.7	4.3	98	4.1	3.0
Va 31 x IA B37	70	0	1	115.9	82	18.5	3.8	100	3.3	2.8
Va 31 x Va 40	73	2	3	156.8	112	20.0	3.7	101	4.0	2.8
Va 31 x Va 12	72	0	1	159.4	114	21.5	4.2	99	3.6	2.8
Va 31 x Va 26-154	69	2	0	153.6	109	19.8	4.3	106	3.8	2.6
Va 31 x 21344	73	1	1	146.9	104	21.3	4.2	101	3.8	3.0
Va 17 x IA B37	72	0	4	146.0	104	20.6	3.8	105	3.8	2.5
Pa 83 x Va 11C	70	2	9	154.4	110	17.7	4.5	101	4.0	2.8
Pa 83 x Va 35	72	2	2	150.9	107	18.4	4.2	94	4.0	2.8
21188 x 21103	73	0	7	91.3	64	14.3	4.0	98	3.3	2.8
Va 35 x 21103	71	0	2	142.1	101	19.2	4.0	98	4.0	2.8
Va 31 x 21103	71	0	4	114.3	81	16.6	4.0	94	3.6	2.8
Va 35 x IA B37	70	0	1	152.7	109	18.8	4.3	98	4.0	2.6
Va 41 x IA B37	70	0	1	161.6	115	22.7	4.3	99	3.5	2.8
Va 27 x IA B37	72	0	1	146.5	104	18.3	4.2	93	4.0	2.3
Va 27 x Hy 3	73	0	14	138.5	98	20.0	4.2	98	4.1	3.0
Va 31 x T8	71	17	0	147.2	105	19.1	3.8	99	4.0	2.6
Va 27 x 21188	71	0	15	101.5	72	17.3	4.0	98	3.5	2.8
Va 27 x Va 12	74	0	16	129.9	92	18.1	4.2	98	4.1	3.0
Va 27 x Va 26-154	71	1	2	138.3	98	18.8	3.8	101	4.1	3.0
Va 27 x 21344	72	0	4	146.4	104	19.3	3.8	98	4.0	2.8
Va 27 x Va 44	72	0	12	136.4	97	20.6	4.0	96	3.8	2.8
Va 27 x Va 33	74	12	3	133.2	95	23.1	3.5	96	4.5	2.5
Va 27 x Va 35-164	73	0	1	148.5	106	20.4	4.2	100	4.0	2.6
Va 17 x Va 26-154	72	0	0	140.2	100	19.2	3.7	98	3.6	2.6
Va 27 x Va 35-169	73	0	2	160.2	114	19.6	4.3	99	4.1	2.5
Va 27 x C103	74	0	4	140.0	99	19.4	4.0	97	4.0	2.8
Va 27 x 21364	74	0	2	156.3	111	19.5	3.8	99	4.1	2.8
Va 27 x 21370	73	0	1	158.6	113	16.5	4.2	96	4.1	2.8
Va 27 x 21356	74	6	5	156.2	111	22.0	4.3	101	4.1	3.0
Va 27 x T8 R-210	74	1	3	170.4	121	20.5	3.7	93	4.0	2.3
Va 31 x T8 R-210	70	2	2	155.7	111	18.7	3.8	93	3.8	3.0
Mean	71	1	2	141.0	100	18.8	3.9	98	3.8	2.8

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> 1 = very poor to 5 = very good.

<sup>3/</sup> 1 = short to 5 = long.

Planted April 24; harvested September 18.

Plot size: 3' x 33'; Reps: 3.

Plants per acre: 19,800.

Cooperator: M. W. Alexander, Tidewater Research Station.

Table 12. Performance of single crosses involving new lines related to Hy, C103 and T8, Petersburg, 1962. (Experiment 186)

Pedigree	Days to silk	% Ldg.	% Bro.	Bu/A	Relative yield <sup>1/</sup>	% H2O	Qu <sub>2</sub> <sup>2/</sup>	Ears /100 plants	Ear ht. ft.	Husk <sup>3/</sup>
Va 31 x Hy 3	70	0	1	113.9	101	20.6	4.7	99	3.4	2.7
Va 31 x Va 40	70	0	0	112.3	100	21.0	4.5	98	3.5	2.3
Va 31 x 21188	68	0	0	89.6	79	20.2	4.2	104	3.1	3.0
Va 31 x Va 12	72	0	1	106.3	94	20.6	3.8	98	2.9	4.3
Va 31 x Va 26-154	64	0	0	98.3	87	20.1	3.2	93	3.1	1.7
Va 31 x 21344	71	0	0	119.5	106	18.6	3.0	95	3.1	2.0
Va 31 x Va 44	69	0	0	110.0	98	22.1	3.2	97	2.9	1.7
Va 31 x Va 33	73	0	0	109.5	97	23.6	2.7	95	3.5	1.0
Va 31 x Va 35-164	70	0	0	118.2	105	20.3	3.0	99	3.1	1.7
Va 31 x Va 35-165	71	0	1	112.3	100	20.8	2.8	97	3.1	2.0
Va 31 x Va 35-169	72	0	0	113.4	101	20.0	2.5	99	3.1	2.3
Va 31 x C103	72	0	0	109.8	97	22.1	2.3	96	3.0	2.7
Va 31 x 21364	71	0	1	121.9	108	24.1	4.0	96	3.1	2.3
Va 31 x 21370	70	0	0	122.2	108	19.1	4.7	99	3.1	4.3
Va 31 x IA B37	67	0	0	102.3	91	21.0	2.7	98	3.2	1.7
Va 31 x Va 40	74	0	1	114.6	102	23.0	3.7	100	3.5	1.0
Va 31 x Va 12	75	0	1	119.7	106	24.8	4.0	95	3.3	3.7
Va 31 x Va 26-154	70	0	0	112.7	100	22.4	4.2	95	3.7	2.0
Va 31 x 21344	72	0	2	123.8	110	22.5	4.3	94	3.5	2.3
Va 17 x IA B37	72	0	1	115.4	102	21.4	3.2	95	3.5	2.3
Pa 83 x Va 11C	72	0	1	97.3	86	23.1	3.8	98	3.2	2.7
Pa 83 x Va 35	70	0	1	110.2	98	22.1	4.2	101	3.4	2.0
21188 x 21103	71	0	0	85.9	76	19.8	4.8	96	2.8	3.0
Va 35 x 21103	72	0	1	112.1	99	23.7	3.8	97	3.7	1.7
Va 31 x 21103	71	0	1	112.8	100	21.3	3.8	96	2.7	3.3
Va 35 x IA B37	72	0	1	114.3	101	22.0	3.5	98	3.3	1.3
Va 41 x IA B37	69	0	0	118.9	105	25.4	3.3	97	2.9	2.3
Va 27 x IA B37	72	0	0	103.8	92	22.5	3.3	92	3.3	1.3
Va 27 x Hy 3	73	0	1	124.7	111	23.8	4.7	90	3.5	1.0
Va 31 x T8	72	0	0	112.1	99	20.8	3.2	96	3.4	1.0
Va 27 x 21188	73	0	0	103.5	92	22.3	4.7	91	2.8	2.3
Va 27 x Va 12	73	0	0	118.9	105	20.8	4.8	98	3.4	3.0
Va 27 x Va 26-154	71	0	0	104.5	93	21.7	3.7	96	3.6	2.3
Va 27 x 21344	73	0	0	117.4	104	22.4	3.8	99	3.0	1.3
Va 27 x Va 44	73	0	0	117.9	105	23.0	4.0	98	3.4	1.7
Va 27 x Va 33	77	0	0	99.5	88	26.2	2.7	90	4.1	1.0
Va 27 x Va 35-164	74	0	1	109.0	97	23.9	3.3	95	3.7	1.0
Va 17 x Va 26-154	71	0	0	116.3	103	22.6	4.2	97	3.5	2.0
Va 27 x Va 35-169	74	0	0	123.2	109	23.6	4.0	96	3.8	1.0
Va 27 x C103	74	0	1	112.6	100	22.1	3.5	92	3.6	3.0
Va 27 x 21364	74	0	0	124.5	110	21.8	3.8	93	3.6	1.0
Va 27 x 21370	73	0	0	116.6	103	20.9	3.7	96	3.7	2.3
Va 27 x 21356	76	0	0	124.2	110	23.8	4.0	96	3.6	1.7
Va 27 x T8 R-210	71	0	0	120.3	107	26.3	3.7	99	3.8	1.0
Va 31 x T8 R-210	70	0	0	127.5	113	21.2	4.2	98	2.8	2.3
Mean	71	0	0	112.7	100	22.1	3.7	96	3.3	2.1

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> 1 = very poor to 5 = very good.

<sup>3/</sup> 1 = short to 5 = long.

Planted April 26; harvested September 3 and 18.

Plot size: 3.3' x 33'; Reps: 3.

Plants per acre: 17,800.

Cooperator: M. T. Carter, Virginia State College,



Table 13. Average performance of single crosses involving new lines related to Hy, C103 and T8, Holland and Petersburg, 1962. (Experiments 185 and 186)

Pedigree	Days to silk	% Ldq.	% Bro.	Bu/A	% H <sub>2</sub> O	Qu <sup>1/</sup>	Ears /100 plants	Ear ht. ft.
Va 31 x Hy3	70	0	2	115.5	18.6	4.2	97	3.7
Va 31 x Va 40	70	0	1	120.0	19.4	4.1	98	3.7
Va 31 x 21188	68	0	5	93.4	17.5	4.0	102	3.2
Va 31 x Va 12	71	1	1	115.2	19.2	4.0	98	3.2
Va 31 x Va 26-154	66	0	0	114.0	18.7	3.5	97	3.4
Va 31 x 21344	71	0	0	128.7	18.1	3.4	96	3.3
Va 31 x Va 44	69	0	1	120.9	21.4	3.6	97	3.2
Va 31 x Va 33	72	4	1	126.9	21.3	3.2	97	3.7
Va 31 x Va 35-164	68	0	0	128.9	19.1	3.5	98	3.3
Va 31 x Va 35-165	70	2	1	130.0	19.3	3.4	95	3.3
Va 31 x Va 35-169	71	1	0	134.6	19.2	3.3	99	3.5
Va 31 x C103	70	0	0	130.9	19.7	3.3	97	3.4
Va 31 x 21364	71	0	2	137.5	21.7	4.1	99	3.5
Va 31 x 21370	70	0	0	138.9	17.4	4.5	98	3.6
Va 31 x IA B37	68	0	0	109.1	19.7	3.2	99	3.2
Va 31 x Va 40	73	1	2	135.7	21.5	3.7	100	3.7
Va 31 x Va 12	73	0	1	139.5	23.1	4.1	97	3.5
Va 31 x Va 26-154	69	1	0	133.1	21.1	4.2	100	3.7
Va 31 x 21344	72	0	1	135.3	21.9	4.2	97	3.7
Va 17 x IA B37	72	0	2	130.7	21.0	3.5	100	3.7
Pa 83 x Va 11C	71	1	5	125.8	20.4	4.1	99	3.6
Pa 83 x Va 35	71	1	1	130.5	20.2	4.2	97	3.7
21188 x 21103	72	0	3	88.6	17.0	4.4	97	3.1
Va 35 x 21103	71	0	1	127.1	21.4	3.9	97	3.8
Va 31 x 21103	71	0	2	113.5	18.9	3.9	95	3.2
Va 35 x IA B37	71	0	1	133.5	20.4	3.9	98	3.6
Va 41 x IA B37	69	0	0	140.2	24.0	3.8	98	3.2
Va 27 x IA B37	72	0	0	125.1	20.4	3.7	92	3.6
Va 27 x Hy 3	73	0	7	131.6	21.9	4.4	94	3.8
Va 31 x T8	71	8	0	129.6	19.9	3.5	97	3.7
Va 27 x 21188	72	0	7	102.5	19.8	4.3	94	3.1
Va 27 x Va 12	73	0	8	124.4	19.4	4.5	98	3.7
Va 27 x Va 26-154	71	0	1	121.4	20.2	3.7	98	3.8
Va 27 x 21344	72	0	2	131.9	20.8	3.8	98	3.5
Va 27 x Va 44	72	0	6	127.1	21.8	4.0	97	3.6
Va 27 x Va 33	75	6	1	116.3	24.6	3.1	93	4.3
Va 27 x Va 35-164	73	0	1	128.7	22.1	3.7	97	3.8
Va 17 x Va 26-154	71	0	0	128.2	20.9	3.9	97	3.5
Va 27 x Va 35-169	73	0	1	141.7	21.6	4.1	97	4.0
Va 27 x C103	74	0	2	126.3	20.7	3.7	94	3.8
Va 27 x 21364	74	0	1	140.4	20.6	3.8	96	3.9
Va 27 x 21370	73	0	0	137.6	18.7	3.9	96	3.9
Va 27 x 21356	75	3	2	140.2	22.9	4.1	98	3.8
Va 27 x T8 R-2190	72	0	1	145.3	23.4	3.7	96	3.9
Va 31 x T8 R-210	70	1	1	141.6	19.9	4.0	95	3.3
Mean	71	0	1	127.1	20.4	3.7	97	3.5

<sup>1/</sup> 1 = very poor to 5 = very good.

Table 14  
Performance of single crosses involving new lines related to Oh43, Holland, 1962

Pedigree	Days to silk	% lodg.	% brok.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qual- ity <sup>2/</sup>	Ears/ 100 pl.	Ear Ht. ft.	Husk <sup>3/</sup>
21188 x 21047	64	0	2	96.1	103	17.1	4.3	101	3.2	3.0
21188 x 21060	65	0	1	84.6	91	17.3	4.0	99	3.0	3.0
21188 x 21067	66	0	0	80.5	87	16.5	4.2	102	3.2	3.0
21188 x 21068	68	0	1	81.2	87	17.9	4.0	99	2.8	3.0
21188 x 21071	70	0	4	93.6	101	16.7	4.2	100	3.2	3.2
21188 x 21086	67	0	0	87.8	94	16.7	4.5	99	3.0	3.0
21188 x 21101	70	0	14	81.8	88	18.0	3.8	95	3.3	3.3
21188 x Oh43	67	0	0	77.7	84	16.9	4.0	109	3.2	3.0
21188 x 21052	65	0	0	61.7	66	15.3	3.0	97	3.0	3.0
21188 x Va41-62	67	0	0	94.2	101	22.4	4.3	98	3.2	3.0
21188 x Va26-154	66	0	0	85.4	92	15.9	4.2	95	3.5	2.8
Va35 x 21047	63	0	1	101.7	109	17.7	3.8	94	3.7	2.7
Va35 x 21060	66	0	1	101.9	110	19.2	4.0	97	3.8	2.8
Va35 x 21067	64	0	1	95.0	102	18.5	4.0	100	3.5	2.8
Va35 x 21068	65	0	0	87.3	94	18.3	3.8	85	3.3	2.7
Va35 x 21071	66	0	0	90.8	98	17.6	4.2	94	3.7	2.8
Va35 x 21086	67	0	1	89.7	97	18.0	4.2	97	4.0	2.8
Va35 x 21101	69	0	0	100.4	108	18.7	3.8	100	4.5	2.7
Va35 x Oh43	63	0	0	105.9	114	18.4	3.8	100	4.0	2.7
Va35 x 21052	59	0	0	88.2	95	17.0	3.8	97	3.2	2.7
Va35 x Va41-62	65	0	0	104.5	112	20.5	3.7	95	3.7	2.7
Va35 x Va26-154	66	0	0	104.6	112	18.1	3.7	99	4.0	2.5
Va31 x 21047	62	0	1	96.1	103	16.4	3.3	96	3.3	3.0
Va31 x 21060	64	0	0	100.6	108	18.6	4.2	101	3.2	3.0
Va31 x Va26-154	61	0	1	102.5	110	16.9	3.7	103	3.7	3.0
Va31 x 21071	63	0	0	110.7	119	16.1	4.2	103	3.5	3.2
Va31 x 21086	64	0	1	97.6	105	17.1	3.7	100	3.3	3.0
Va31 x 21101	67	0	2	89.9	97	19.1	3.8	93	3.3	2.8
Va31 x Oh43	63	0	0	102.3	110	17.2	3.8	97	3.5	2.8
Va31 x 21052	62	0	3	82.6	89	15.2	3.7	101	3.2	3.0
Va31 x Va41-62	65	0	1	103.4	111	19.9	3.7	96	3.3	3.0
Mean	65	0	1	92.9		17.7	3.8	98	3.4	2.9

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> Quality Score: 1 = very poor to 5 = excellent.

<sup>3/</sup> Husk Rating: 1 = very short to 5 = long.

Planted April 26, harvested September 26.

Plot size: 3' x 23'. Reps: 3.

Plants per acre: 20,800.

Cooperator: M. W. Alexander, Tidewater Research Station.

Table 15  
Performance of single crosses involving new lines related to Oh43, Blacksburg, 1962.

Pedigree	Days to silk	% lodg.	% brok.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qual- ity score <sup>2/</sup>	Ears/ 100 Pl.	Ear Ht. Ft.	Husk <sup>3/</sup>	Leaf blight <sup>4/</sup>
21188 x 21047	83	0	12	101.9	99	22.5	3.2	88	2.0	4.3	1.0
21188 x 21060	86	0	9	89.4	86	22.7	2.5	71	1.8	4.0	.7
21188 x 21067	82	0	9	95.4	92	18.3	3.0	78	1.7	4.3	1.0
21188 x 21068	85	0	1	103.1	100	23.9	2.8	77	2.0	5.0	.8
21188 x 21071	88	0	13	93.4	90	23.5	2.7	81	2.2	4.3	.5
21188 x 21086	85	0	30	92.3	89	22.5	3.0	79	1.8	4.0	.8
21188 x 21101	87	0	12	104.4	101	22.2	3.2	85	2.2	3.7	.5
21188 x Oh43	87	0	31	89.0	86	21.0	2.8	74	1.8	3.7	1.2
21188 x 21052	84	0	12	85.4	83	19.2	2.0	62	1.5	3.3	3.2
21188 x Va41-62	83	0	5	96.1	93	24.4	2.7	72	2.0	3.7	.8
21188 x Va26-154	83	0	9	96.5	93	18.7	3.2	87	2.2	3.0	.8
Va35 x 21047	82	0	19	103.2	100	21.9	3.2	86	2.2	3.0	.8
Va35 x 21060	86	0	9	108.4	105	22.3	3.3	89	2.2	3.0	.7
Va35 x 21067	82	0	8	113.1	109	23.8	3.8	87	2.2	2.7	.5
Va35 x 21068	84	0	0	119.0	115	23.6	3.8	87	2.2	3.3	.5
Va35 x 21071	85	1	30	102.8	99	24.2	3.8	91	2.3	3.0	.5
Va35 x 21086	86	0	26	101.4	98	24.1	3.7	88	2.2	3.0	.8
Va35 x 21101	87	0	10	124.1	120	22.9	3.3	87	2.7	3.0	.5
Va35 x Oh43	85	0	43	99.6	96	23.1	2.8	86	2.2	2.3	.5
Va35 x 21052	80	0	41	95.4	92	18.8	3.0	89	1.8	3.0	.7
Va35 x Va41-62	82	0	15	107.5	104	23.0	3.2	93	2.2	2.7	.8
Va35 x Va26-154	83	0	7	116.6	113	22.3	3.8	89	2.7	3.0	1.0
Va31 x 21047	80	0	35	118.2	114	19.5	3.2	91	2.2	3.3	1.2
Va31 x 21060	83	0	2	113.3	110	24.9	3.0	86	2.2	3.3	1.2
Va31 x Va26-154	79	0	14	118.6	115	19.1	3.7	95	2.3	3.3	1.7
Va31 x 21071	85	0	13	118.4	115	22.0	2.8	77	2.2	3.0	.5
Va31 x 21086	83	0	17	99.9	97	20.7	3.0	83	2.3	3.3	.8
Va31 x 21101	84	0	12	101.5	98	23.6	2.8	85	2.2	3.7	1.2
Va31 x Oh43	81	0	8	114.2	110	20.7	3.3	88	2.2	3.3	1.0
Va31 x 21052	79	0	26	86.2	83	18.8	3.3	81	1.3	3.3	1.8
Va31 x Va41-62	84	0	26	98.1	95	23.9	2.8	79	1.8	3.7	1.5
Mean	83	0	16	103.4		21.9	3.0	82	2.1	3.3	1.0

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> Quality Score: 1 = very poor to 5 = excellent.

<sup>3/</sup> Husk Rating: 1 = very short to 5 = long.

<sup>4/</sup> Leaf Blight: 0 = no blight to 5 = severe blight.

Planted May 3, harvested October 9.

Plot size: 3' x 33'. Reps: 3.

Plants per acre: 22,000.

Grown at Kipps Farm.

Table 16  
Average performance of single crosses involving new lines related to Oh43,  
Holland and Blacksburg, 1962.

Pedigree	Days to silk	% lodg.	% brok.	Bu/a	Relative yield <sup>1/</sup>	% H2O	Qual- ity <sup>2/</sup> score	Ears/ 100 pl.	Ear ht. ft.	Husk <sup>3/</sup>
21188 x 21047	73	0	7	99.0	101	19.8	3.7	94	2.6	3.7
21188 x 21060	75	0	5	87.0	89	20.0	3.2	85	2.4	3.5
21188 x 21067	74	0	4	87.9	90	17.4	3.6	90	2.4	3.7
21188 x 21068	76	0	1	92.1	94	20.9	3.4	88	2.4	4.0
21188 x 21071	79	0	8	93.5	95	20.1	3.4	90	2.7	3.8
21188 x 21086	76	0	15	90.0	92	19.6	3.7	89	2.4	3.5
21188 x 21101	78	0	13	93.1	95	20.1	3.5	90	2.8	3.5
21188 x Oh43	77	0	15	83.3	85	18.9	3.4	91	2.5	3.3
21188 x 21052	74	0	6	73.5	75	17.2	2.5	79	2.3	3.2
21188 x Va41-62	75	0	2	95.1	97	23.4	3.5	85	2.6	3.3
21188 x Va26-154	74	0	4	90.9	93	17.3	3.7	91	2.8	2.9
Va35 x 21047	72	0	10	102.4	104	19.8	3.5	90	2.9	2.8
Va35 x 21060	76	0	5	105.1	107	20.7	3.6	93	3.0	2.9
Va35 x 21067	73	0	4	104.0	106	21.1	3.9	93	2.8	2.8
Va35 x 21068	74	0	0	103.1	105	20.9	3.8	86	2.8	3.0
Va35 x 21071	75	0	15	96.8	99	20.9	4.0	92	3.0	2.9
Va35 x 21086	76	0	13	95.5	97	21.0	3.9	92	3.1	2.9
Va35 x 21101	78	0	5	112.2	114	20.8	3.5	93	3.6	2.8
Va35 x Oh43	74	0	21	102.7	105	20.7	3.3	93	3.1	2.5
Va35 x 21052	69	0	20	91.8	94	17.9	3.4	93	2.5	2.8
Va35 x Va41-62	73	0	7	106.0	108	21.7	3.4	94	2.9	2.7
Va35 x Va26-154	74	0	3	110.6	113	20.2	3.7	94	3.3	2.8
Va31 x 21047	71	0	18	107.1	109	17.9	3.2	93	2.8	3.2
Va31 x 21060	73	0	1	106.9	109	21.7	3.6	93	2.7	3.2
Va31 x Va26-154	70	0	7	110.5	113	18.0	3.7	99	3.0	3.2
Va31 x 21071	74	0	6	114.5	117	19.0	3.5	90	2.8	3.1
Va31 x 21086	73	0	9	98.7	101	18.9	3.3	91	2.8	3.2
Va31 x 21101	75	0	7	95.7	98	21.3	3.3	89	2.8	3.3
Va31 x Oh43	72	0	4	108.2	110	18.9	3.5	92	2.8	3.1
Va31 x 21052	70	0	14	84.4	86	17.0	3.5	91	2.3	3.2
Va31 x Va41-62	74	0	13	100.7	103	21.9	3.2	87	2.6	3.3
Mean	74	0	8	98.1		19.8	3.4	90	2.7	3.1

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> Quality Score: 1 = very poor to 5 = excellent.

<sup>3/</sup> Husk Rating: 1 = very short to 5 = long.

Table 17  
Performance of single crosses involving new lines related to WF9, Holland, 1962.

Pedigree	Days to silk	% lodg.	% brok.	Bu/A	Relative yield <sup>1/</sup> %	H <sub>2</sub> O	Qual- ity <sup>2/</sup> score	Ears/ 100 pl.	Ear ht. ft.	Husk <sup>3/</sup>
Va35 x Ind H49	69	3	0	155.9	116	19.3	4.0	104	4.0	2.8
Va35 x WF9B	68	20	3	143.5	106	16.9	3.7	97	3.7	2.8
Va35 x 21148	68	0	0	138.2	102	19.1	4.2	98	3.7	2.8
Va35 x 21150	67	0	1	135.0	100	18.2	4.2	97	4.0	2.8
Va35 x 21163	67	0	0	151.5	112	18.0	4.3	99	3.7	2.8
Va35 x 21167	68	4	2	135.0	100	18.2	4.2	97	3.5	3.0
Va35 x 21172	69	0	0	152.1	113	18.3	4.3	96	3.5	3.0
Va35 x 21174	69	5	0	139.5	103	18.6	4.0	92	3.5	2.8
Va27 x 21157	70	0	15	140.8	104	17.3	3.7	101	3.5	3.0
Va27 x WF9B	68	0	5	132.0	98	17.8	4.0	96	3.7	3.0
Va27 x 21148	68	0	34	112.8	84	19.0	4.0	95	3.5	3.0
Va27 x 21150	68	0	42	109.3	81	19.2	3.8	96	3.5	2.8
Va27 x 21163	70	1	5	112.1	83	18.6	3.8	84	3.5	3.0
Va27 x 21167	70	1	4	136.5	101	17.7	3.8	99	3.5	3.0
Va27 x 21172	71	0	15	141.4	105	19.1	4.0	99	4.0	3.0
Va27 x 21174	69	0	5	124.5	92	17.7	4.3	95	3.7	3.0
Mean	68	2	8	135.0		18.3	3.9	96	3.6	2.9

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> Quality Score: 1 = very poor to 5 = excellent.

<sup>3/</sup> Husk Rating: 1 = very short to 5 = long.

Planted April 24; harvested September 25 and 26.

Plot size: 3' x 33'. Reps: 3.

Plants per acre: 19,800.

Cooperator: M. W. Alexander, Tidewater Research Station.

Table 18  
Performance of single crosses involving new lines related to WF9, Warsaw, 1962.

Pedigree	Days to silk	% lodg.	% brok.	Bu/A	Relative yield <sup>1/</sup> %	H <sub>2</sub> O	Qual- ity score <sup>2/</sup>	Ears/ 100 pl.	Ear ht. ft.	Husk <sup>3/</sup>
Va35 x Ind H49	69	6	17	128.4	116	21.2	3.0	95	3.5	1.8
Va35 x WF9B	70	9	20	122.6	110	21.4	2.7	97	3.2	2.3
Va35 x 21148	70	1	7	111.1	100	20.8	3.7	92	3.3	2.3
Va35 x 21150	69	5	11	106.6	96	21.5	3.2	92	3.7	2.0
Va35 x 21163	69	12	9	120.7	109	21.6	3.8	94	3.4	2.7
Va35 x 21167	70	10	10	124.9	112	21.8	3.8	92	3.4	2.7
Va35 x 21172	72	11	12	117.5	106	22.1	3.3	98	3.6	2.3
Va35 x 21174	71	15	12	116.2	105	21.3	4.2	93	3.4	2.7
Va27 x 21157	73	6	10	105.6	95	23.4	2.7	89	3.4	3.2
Va27 x WF9B	71	1	21	105.5	95	22.7	2.2	94	3.5	2.0
Va27 x 21148	71	6	10	103.8	93	23.0	3.0	91	3.4	3.5
Va27 x 21150	70	5	12	110.9	100	22.8	2.8	92	3.6	2.3
Va27 x 21163	70	7	9	99.8	90	22.3	3.2	87	3.6	2.3
Va27 x 21167	72	17	9	98.8	89	21.9	2.8	83	3.7	2.7
Va27 x 21172	73	14	13	103.8	93	21.8	3.2	90	3.9	2.0
Va27 x 21174	70	10	19	102.1	92	21.6	3.0	97	3.4	2.8
Mean	69	8	13	111.1		21.9	3.1	91	3.5	2.4

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> Quality Score: 1 = very poor to 5 = excellent.

<sup>3/</sup> Husk Rating: 1 = very short to 5 = long.

Planted May 3, harvested September 24.

Plot size: 3' x 33'. Reps: 3.

Plants per acre: 22,000.

Cooperators: H. M. Camper, Jr., and W. L. Sisson  
Eastern Virginia Research Station.

Table 19  
Average performance of single crosses involving new lines related to WF9,  
Holland and Warsaw, 1962.

Pedigree	Days to silk	% lodg.	% brok.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qual- ity score <sup>2/</sup>	Ears/ 100 pl.	Ear ht. ft.	Husk <sup>3/</sup>
Va35 x Ind H49	69	4	8	142.1	115	20.2	3.5	99	3.8	2.3
Va35 x WF9B	69	14	11	133.0	108	19.1	3.2	97	3.4	2.6
Va35 x 21148	69	0	3	124.6	101	19.9	3.9	95	3.5	2.6
Va35 x 21150	68	2	6	120.8	98	19.8	3.7	94	3.8	2.4
Va35 x 21163	68	6	4	136.1	111	19.8	4.0	96	3.6	2.8
Va35 x 21167	69	7	6	129.9	105	20.0	4.0	94	3.5	2.8
Va35 x 21172	70	5	6	134.8	109	20.2	3.8	97	3.6	2.7
Va35 x 21174	70	10	6	127.8	104	19.9	4.1	92	3.5	2.8
Va27 x 21157	71	3	12	123.2	100	20.3	3.2	95	3.5	3.1
Va27 x WF9B	69	0	13	118.7	96	20.2	3.1	95	3.6	2.5
Va27 x 21148	69	3	22	108.3	88	21.0	3.5	93	3.5	3.3
Va27 x 21150	69	2	27	110.1	89	21.0	3.3	94	3.6	2.6
Va27 x 21163	70	4	7	105.9	86	20.4	3.5	85	3.6	2.7
Va27 x 21167	71	9	6	117.6	96	19.8	3.3	91	3.6	2.8
Va27 x 21172	72	7	14	122.6	100	20.4	3.6	94	3.9	2.5
Va27 x 21174	69	5	12	113.3	92	19.6	3.6	96	3.5	2.9
Mean	69	5	10	123.1		20.1	3.6	93	3.6	2.7

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> Quality Score: 1 = very poor to 5 = excellent.

<sup>3/</sup> Husk Rating: 1 = very short to 5 = long.

Table 20  
Performance of single crosses involving early lines, Blacksburg, 1962.

Pedigree	Days to silk	% lodg.	% brok.	Bu/A	Relative yield <sup>1/</sup> %	H <sub>2</sub> O	Qual- ity <sup>2/</sup> score	Ears/ 100 pl.	Ear ht. ft.	Husk <sup>3/</sup>	Leaf blight <sup>4/</sup>
Va31 x Va25	81	0	10	123.1	114	23.6	4.2	96	2.8	3.0	1.7
Va31 x 21420	79	0	2	126.6	117	23.8	4.3	93	3.0	3.3	1.7
Va31 x 21425	77	0	6	109.9	102	27.0	3.5	93	2.0	3.7	1.7
Va31 x 21427	75	0	13	87.2	81	21.2	3.5	87	1.8	3.7	2.5
Pa83 x Va11C	86	0	0	97.8	90	22.5	2.5	92	2.3	3.3	1.2
Va31 x 21433	82	0	12	94.4	87	22.3	3.0	91	2.2	3.7	2.7
Va31 x 21434	82	0	6	96.7	89	19.8	3.0	80	2.0	3.7	1.8
Va31 x A295	77	0	13	115.1	106	19.9	3.7	96	2.3	3.0	2.5
Va31 x W153R	72	0	10	101.4	94	18.9	3.0	81	2.2	2.3	2.0
Va31 x Pa54	77	2	38	79.7	74	22.9	2.8	64	2.3	3.0	2.7
Va31 x W22	81	0	11	110.9	102	20.3	3.3	78	2.3	4.0	2.7
Va17 x 21416	82	0	9	115.9	107	22.4	4.3	95	2.3	3.7	1.0
Va17 x 21420	82	0	4	133.8	123	24.9	4.0	97	2.7	4.0	.7
Va17 x 21425	83	0	1	110.7	102	26.1	2.8	83	2.2	3.3	.7
Va17 x 21427	78	0	8	106.5	98	25.7	3.8	88	2.2	3.3	1.2
Va17 x 21428	85	0	0	121.2	112	24.5	2.7	88	2.7	2.3	1.3
Va17 x 21433	83	0	1	113.9	105	26.5	3.8	87	2.3	2.3	1.2
Va17 x 21434	82	0	2	106.9	99	25.3	3.7	82	2.3	2.7	.8
Va17 x A295	79	0	0	113.9	105	20.1	3.7	94	2.5	2.0	1.7
Va17 x W153R	78	0	7	102.2	94	20.7	3.5	90	2.3	2.3	.8
Va17 x Pa54	80	0	19	110.6	102	22.6	4.0	87	2.8	2.0	1.7
Va17 x W22	83	0	1	136.3	126	24.5	3.7	95	2.7	3.0	2.0
Va35 x Pa83	85	0	6	102.6	95	24.6	3.3	86	2.3	3.0	1.5
Va31 x Pa83 (Related)	84	0	32	74.3	69	20.0	2.3	76	2.3	3.7	2.0
Va35 x 21420	84	0	10	131.5	121	23.8	3.3	88	2.7	3.0	1.0
Va35 x 21425	85	0	5	104.8	97	25.9	2.8	89	2.3	2.7	.7
Va35 x 21427	78	0	9	117.5	108	20.2	3.5	95	2.5	2.3	1.5
Va35 x 21428	85	0	8	107.0	99	24.2	2.8	84	2.2	2.0	1.3
Va35 x 21433	85	1	7	103.0	95	23.6	3.3	88	2.3	2.0	1.2
Va35 x 21434	81	0	18	108.8	101	21.9	3.3	89	2.3	2.0	1.0
Va35 x A295	78	0	1	111.4	103	22.2	3.8	91	2.5	2.0	1.7
Va35 x W153R	79	0	31	115.5	107	20.0	4.0	97	2.5	2.0	.8
Va35 x Pa54	82	0	24	121.0	112	20.8	3.3	95	2.8	2.0	1.5
Va35 x W22	84	0	9	136.7	126	23.6	4.3	97	3.0	3.0	1.2
Va11 x 21416	84	0	5	102.8	95	23.7	3.0	84	2.0	4.3	1.2
Va11 x 21420	85	0	2	113.3	105	23.8	3.0	80	2.5	3.7	1.3
Va11 x 21425	85	0	2	102.6	104	25.1	2.7	86	2.0	3.3	.7
Va11 x 21427	81	0	3	91.1	84	20.8	3.3	82	2.2	3.3	2.0
Va11 x 21428	87	0	3	100.2	93	23.8	2.8	78	2.3	2.0	2.2
Va11 x 21433	86	0	0	97.8	90	24.0	2.8	71	2.3	2.0	1.0
Va11 x 21434	84	0	3	94.5	87	24.1	3.0	82	2.3	3.7	1.3
Va11 x A295	80	0	2	114.0	105	22.3	4.0	98	2.3	3.3	2.2
Va11 x W153R	83	0	7	88.2	82	22.5	2.5	73	2.3	3.3	1.8
Va11 x Pa54	81	0	33	103.8	96	23.1	3.5	87	2.7	3.0	1.7
Va11 x W22	85	0	3	112.2	104	24.1	2.5	77	2.5	3.7	2.2
Mean	81	0	8	108.2		22.9	3.3	87	2.4	2.9	1.5

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> Quality Score: 1 = very poor to 5 = excellent.

<sup>3/</sup> Husk Rating: 1 = very short to 5 = long.

<sup>4/</sup> Leaf Blight: 0 = no blight to 5 = severe blight.

Planted May 3, harvested October 2.

Plot size: 3' x 33'. Reps: 3.

Plants per acre: 19,800.

Grown at the Kipps Farm.



Table 21. Performance of single crosses involving early lines, Orange, 1962.

Pedigree	Days to silk	% lodg.	% brok.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qual- ity score <sup>2/</sup>	Ears/ 100 pl.	Ear ht. ft.	Husk <sup>3/</sup>
Va31 x Va25	67	20	5	108.0	100	25.6	4.0	98	2.8	4.0
Va31 x 21420	67	1	40	105.8	98	21.2	2.8	101	3.3	3.7
Va31 x 21425	68	7	8	99.0	91	22.6	3.5	103	2.8	4.3
Va31 x 21427	64	0	6	106.4	98	16.6	3.8	96	2.7	5.0
Pa83 x Va11C	73	16	14	106.6	98	20.2	5.0	101	3.3	4.0
Va31 x 21433	67	7	10	104.7	97	19.1	4.3	101	2.7	4.5
Va31 x 21434	67	5	4	101.8	94	18.9	3.3	94	2.8	5.0
Va31 x A295	65	3	12	91.9	85	14.4	4.0	101	3.2	3.3
Va31 x W153R	63	3	6	94.2	87	15.7	3.2	98	3.0	3.7
Va31 x Pa54	67	4	6	89.1	82	18.8	4.5	98	3.2	4.0
Va31 x W22	68	6	22	118.5	109	16.9	3.7	99	3.0	4.3
Va17 x 21416	68	17	8	116.2	107	20.1	4.8	105	3.5	4.3
Va17 x 21420	72	11	7	114.1	105	23.1	4.0	93	3.3	4.0
Va17 x 21425	72	23	7	118.4	109	22.8	4.3	100	3.0	4.0
Va17 x 21427	68	3	1	119.4	110	22.2	3.5	101	2.7	4.0
Va17 x 21428	74	41	2	124.5	115	23.1	3.2	105	3.3	3.3
Va17 x 21433	72	20	1	112.9	104	21.1	4.5	99	3.2	3.7
Va17 x 21434	70	47	1	111.3	103	18.0	4.2	99	3.2	4.3
Va17 x A295	71	60	3	98.8	91	18.5	2.8	99	3.2	3.0
Va17 x W153R	65	36	4	98.7	91	18.8	4.0	100	3.3	3.7
Va17 x Pa54	70	16	5	109.7	101	19.2	4.0	100	3.8	3.3
Va17 x W22	72	60	5	126.2	117	20.3	4.0	82	3.3	4.0
Va35 x Pa83	70	17	4	125.5	116	19.0	4.8	100	3.3	3.7
Va31 x Pa83 (Related)	72	14	14	82.8	77	19.1	2.3	100	3.0	4.8
Va35 x 21420	72	6	5	114.3	106	20.5	4.7	98	3.8	4.0
Va35 x 21425	71	12	13	100.5	93	21.8	3.5	97	3.3	3.7
Va35 x 21427	66	1	4	107.4	99	20.6	5.0	99	3.3	4.0
Va35 x 21428	71	50	7	123.5	114	20.0	4.3	102	3.3	3.0
Va35 x 21433	72	25	15	105.2	97	19.6	3.8	98	3.2	3.0
Va35 x 21434	69	34	18	101.9	94	19.0	4.7	96	3.3	2.7
Va35 x A295	69	55	4	93.9	87	20.9	3.3	90	3.2	3.0
Va35 x W153R	64	18	6	116.7	108	16.3	4.2	101	3.5	3.0
Va35 x Pa54	69	17	11	112.5	104	19.8	4.3	100	3.5	3.0
Va35 x W22	71	69	10	132.3	122	21.0	4.2	99	3.8	3.7
Va11 x 21416	69	24	18	107.6	99	20.8	5.0	96	3.0	4.3
Va11 x 21420	71	4	10	108.8	101	21.9	4.3	98	3.3	3.7
Va11 x 21425	70	8	22	103.2	95	22.3	4.3	104	3.3	3.7
Va11 x 21427	65	25	4	110.9	102	18.8	5.0	98	3.0	4.0
Va11 x 21428	72	24	6	113.1	105	21.6	4.7	101	3.3	3.3
Va11 x 21433	72	6	17	108.4	100	18.5	4.0	99	3.5	3.3
Va11 x 21434	69	5	1	102.4	95	18.1	4.3	99	3.0	4.3
Va11 x A295	67	13	23	99.3	92	17.6	4.0	99	3.7	3.7
Va11 x W153R	65	9	8	108.1	100	17.4	5.0	100	3.5	3.3
Va11 x Pa54	69	2	35	109.8	101	21.5	4.7	100	3.7	3.3
Va11 x W22	71	30	71	106.1	98	20.2	4.7	98	3.3	4.0
Mean	69	19	10	108.2		19.7	4.0	98	3.3	3.8

1/ Relative to the mean yield of the test.

2/ Quality Score: 1 = very poor to 5 = excellent.

3/ Husk Rating: 1 = very short to 5 = long.

Planted May 26, harvested September 25.

Plot size: 3' x 33'. Reps: 3.

Plants per acre: 19,800.

Cooperator: G. D. Jones, Piedmont Research Station.

Table 22  
Average performance of single crosses involving early lines,  
Blacksburg and Orange, 1962.

Pedigree	Days to silk	% lodg.	% brok.	Bu/A	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qual- ity score <sup>2/</sup>	Ears/ 100 pl.	Ear ht. ft.	Husk <sup>3/</sup>
Va31 x Va25	74	10	7	115.5	107	24.6	4.1	97	2.8	3.5
Va31 x 21420	73	0	21	116.2	107	22.5	3.5	97	3.2	3.5
Va31 x 21425	72	3	7	104.4	96	24.8	3.5	98	2.4	4.0
Va31 x 21427	69	0	9	96.8	89	18.9	3.6	91	2.3	4.3
Pa83 x Va11C	79	8	7	102.2	94	21.3	3.7	96	2.8	3.7
Va31 x 21433	74	3	11	99.5	92	20.7	3.6	96	2.4	4.1
Va31 x 21434	74	2	5	99.2	92	19.3	3.1	87	2.4	4.3
Va31 x A295	71	1	12	103.5	96	17.1	3.8	98	2.8	3.2
Va31 x W153R	67	1	8	97.8	90	17.3	3.1	89	2.6	3.0
Va31 x Pa54	72	3	22	84.4	78	20.8	3.6	81	2.8	3.5
Va31 x W22	74	3	16	114.7	106	18.6	3.5	88	2.7	4.2
Va17 x 21416	75	8	8	116.0	107	21.2	4.5	100	2.9	4.0
Va17 x 21420	77	5	5	123.9	114	24.0	4.0	95	3.0	4.0
Va17 x 21425	77	11	4	114.5	106	24.4	3.5	91	2.6	3.7
Va17 x 21427	73	1	4	112.9	104	23.9	3.6	94	2.4	3.7
Va17 x 11428	79	20	1	122.8	113	23.8	2.9	96	3.0	2.8
Va17 x 21433	77	10	1	113.4	105	23.8	4.1	93	2.8	3.0
Va17 x 21434	76	23	1	109.1	101	21.6	3.9	90	2.8	3.5
Va17 x A295	75	30	1	106.3	98	19.3	3.2	96	2.8	2.5
Va17 x W153R	71	18	5	100.4	93	19.7	3.7	95	2.8	3.0
Va17 x Pa54	75	8	12	110.1	102	20.9	4.0	93	3.3	2.7
Va17 x W22	77	30	3	131.2	121	22.4	3.8	88	3.0	3.5
Va35 x Pa83	77	8	5	114.0	105	21.8	4.0	93	2.8	3.3
Va31 x Pa83 (Related)	78	7	23	78.5	73	19.5	2.3	88	2.7	4.2
Va35 x 21420	78	3	7	122.9	114	22.1	4.0	93	3.3	3.5
Va35 x 21425	78	6	9	102.6	95	23.8	3.1	93	2.8	3.2
Va35 x 21427	72	0	6	112.4	104	20.4	4.2	97	2.9	3.2
Va35 x 21428	78	25	7	115.2	106	22.1	3.5	93	2.8	2.5
Va35 x 21433	78	13	11	104.1	96	21.6	3.5	93	2.8	2.5
Va35 x 21434	75	17	18	105.3	97	20.4	4.0	92	2.8	2.3
Va35 x A295	73	27	2	102.6	95	21.5	3.5	90	2.8	2.5
Va35 x W153R	71	9	18	116.1	107	18.1	4.1	99	3.0	2.5
Va35 x Pa54	75	8	17	116.7	108	20.3	3.8	97	3.2	2.5
Va35 x W22	77	34	9	134.5	124	22.3	4.2	98	3.4	3.3
Va11 x 21416	76	12	11	105.2	97	22.2	4.0	90	2.5	4.3
Va11 x 21420	78	2	6	111.0	103	22.8	3.6	89	2.9	3.7
Va11 x 21425	77	4	12	102.9	95	23.7	3.5	95	2.7	3.5
Va11 x 21427	73	12	3	101.0	93	19.8	4.1	90	2.6	3.7
Va11 x 21428	79	12	4	106.6	98	22.7	3.7	89	2.8	2.7
Va11 x 21433	79	3	8	103.1	95	21.2	3.4	85	2.9	2.7
Va11 x 21434	76	2	2	98.4	91	21.1	3.6	90	2.7	4.0
Va11 x A295	73	6	12	106.6	98	19.9	4.0	98	3.0	3.5
Va11 x W153R	74	4	7	98.1	91	19.9	3.7	86	2.9	3.3
Va11 x Pa54	75	1	34	106.8	99	22.3	4.1	93	3.2	3.2
Va11 x W22	78	15	37	109.1	101	22.1	3.6	87	2.9	3.8
Mean	75	9	9	108.2		21.3	3.7	92	2.8	3.4

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> Quality Rating: 1 = very poor to 5 = excellent.

<sup>3/</sup> Husk Rating: 1 = very short to 5 = long.

Table 23. Performance of Experimental Double Crosses, Blacksburg, 1962.

Pedigree	% lodg.	% brok.	Bu. per acre	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qual- ity score <sup>2/</sup>	Ears/ 100 plants	Ear ht. ft.	Husk <sup>3/</sup>	Leaf blight <sup>4/</sup>
DeKalb 633	1	20	100.2	96	21.0	2.2	74	3.2	4.3	1.8
Va 244		39	95.1	91	22.0	2.5	81	3.0	3.0	1.3
Va 245		21	102.7	98	20.8	2.5	74	3.0	3.7	.8
Va 246		12	113.1	108	21.1	3.5	85	3.3	3.0	1.3
Va 247		26	108.7	104	22.4	3.3	88	2.8	3.3	1.3
Va 248		28	102.4	98	19.0	2.8	81	3.0	3.7	1.3
Va 249	1	17	107.6	103	23.7	3.2	85	3.2	3.0	1.0
Va 250		17	109.8	105	20.4	3.3	87	3.0	3.3	.7
Va 251		15	115.8	111	21.6	2.8	88	3.2	3.3	1.2
VPI 646		17	101.9	97	23.8	2.3	74	3.3	2.7	1.2
Va 252		13	106.5	102	19.9	3.3	87	3.5	3.0	1.7
Va 253		24	107.7	103	18.9	3.0	88	3.0	3.7	1.3
Va 254		22	113.2	108	20.4	3.5	88	3.3	3.0	1.3
Va 255	1	16	121.0	116	21.9	3.0	90	3.2	4.0	1.5
Va 256		21	94.1	90	21.9	2.0	74	3.5	3.7	1.0
Va 257	1	47	100.6	96	22.7	2.3	82	3.2	3.7	1.0
Va 258		17	90.6	87	21.3	3.0	71	3.2	4.0	.8
Va 259		19	103.3	99	24.8	2.7	88	3.3	3.3	1.0
Va 260		39	95.5	91	20.7	2.7	76	2.7	3.3	1.5
Va 261		35	93.2	89	23.3	2.8	81	3.2	3.0	.8
Va 262		39	108.2	103	21.6	2.8	84	3.0	3.0	1.2
Va 263		22	114.4	109	20.1	3.0	91	3.0	3.3	1.8
Va 264	1	18	104.4	100	24.0	2.2	80	3.0	3.7	1.2
Va 265		27	110.6	106	20.5	2.8	82	3.3	3.3	1.5
VPI 648		17	99.4	95	22.8	2.5	79	3.3	3.7	1.2
Va 266		26	96.8	93	21.7	2.5	66	3.0	4.0	1.7
Va 267		22	100.4	96	22.7	3.2	83	3.0	3.7	1.3
Va 268		28	106.2	102	21.7	3.0	83	2.7	3.7	1.2
Va 269		37	114.3	109	19.8	3.3	87	3.3	3.0	.7
Va 280		25	113.1	108	19.6	3.0	81	3.2	2.7	1.3
Va 281		37	103.4	99	19.3	2.7	81	3.0	3.3	1.3
Va 285		32	113.6	109	18.3	2.5	77	3.2	3.3	.8
Va 286		21	138.6	132	20.9	3.2	90	3.3	2.7	1.2
Va 288		21	99.7	95	24.3	2.3	81	3.3	4.0	.5
Funk G144		32	98.7	94	22.5	2.2	79	2.8	4.7	1.2
Va 289		10	100.0	96	23.1	2.5	82	3.5	3.7	1.3
Va 290		26	101.7	97	21.5	2.3	82	3.3	3.7	1.0
Va 291		17	114.5	109	23.0	3.0	90	3.3	3.7	1.2
Va 292		16	100.3	96	21.5	2.5	76	3.2	3.7	.7
Va 293		27	98.6	94	22.5	2.7	83	3.0	3.0	1.8
Va 294		25	107.1	102	22.2	3.3	86	3.3	3.3	.5
Va 295		40	110.6	106	20.6	3.0	89	3.0	3.0	1.0
Va 296		38	104.8	100	20.3	3.3	88	2.8	2.7	1.0
Va 297		37	106.1	101	19.2	2.7	79	3.0	4.0	1.5
Va 298		24	82.0	78	24.3	2.7	64	3.5	3.3	1.0
Va 226		30	103.2	99	22.9	2.8	82	3.3	4.0	.7
Va 227		21	106.2	102	25.8	3.3	86	3.5	3.3	.7
Va 219		24	89.2	85	23.1	2.7	73	3.3	3.7	1.0
Va 237		16	117.1	112	19.8	3.5	89	3.2	3.7	.5
Va 556		18	99.2	95	21.8	2.3	71	3.2	4.0	1.0
Va 239		15	108.5	104	22.6	2.5	81	3.5	4.0	2.0
Va 240		21	105.9	101	22.8	3.0	85	3.0	3.3	1.5
Va 148C		25	103.3	99	21.3	2.7	75	2.8	3.7	1.2
Va 4		18	98.0	94	27.2	3.0	84	3.3	3.3	1.5
Pioneer 329		15	92.0	88	21.4	2.5	85	3.0	3.7	2.2
Pioneer 345A		27	106.3	102	21.0	3.0	88	3.3	4.0	2.2
Mean of test	0	24	104.6	100	21.7	2.8	81	3.2	3.5	

<sup>1/</sup> Relative to the mean yield of the test.<sup>2/</sup> 1 = very poor to 5 = very good.<sup>3/</sup> 1 = short to 5 = long.<sup>4/</sup> 1 = very good to 5 = very poor.

Planted May 3; harvested October 8.

Plot size: 3' x 33'; No. of reps: 3.

Plants per acre: 22,000.

Table 24. Performance of Experimental Double Crosses, Mitchells, 1962.

Pedigree	Percent lodged	Percent broken	Bu. per acre	Relative yield <sup>1/</sup>	Percent H <sub>2</sub> O
DeKalb 633		9	121.0	104	22.8
Va 244	1	4	125.3	108	21.1
Va 245		7	95.4	82	22.6
Va 246	1	10	115.3	99	21.8
Va 247		10	112.4	97	22.4
Va 248		7	115.5	99	19.9
Va 249		5	108.0	93	21.1
Va 250		5	104.2	89	20.2
Va 251		6	107.5	92	22.4
VPI 646	1	9	113.0	97	22.9
Va 252		6	118.0	101	22.4
Va 253		10	102.2	88	20.4
Va 254		7	113.5	97	20.9
Va 255	1	8	123.8	106	21.8
Va 256		2	93.7	80	21.3
Va 257		9	132.3	114	22.4
Va 258		10	112.9	97	23.4
Va 259		9	112.4	97	23.1
Va 260	1	8	118.8	102	22.1
Va 261		9	107.3	92	23.3
Va 262		7	106.4	91	23.2
Va 263		13	123.9	106	19.5
Va 264	1	8	132.4	114	24.0
Va 265		9	120.8	104	21.8
VPI 648		16	119.8	103	23.3
Va 266	1	8	115.9	100	21.0
Va 267	2	8	115.8	99	21.9
Va 268		7	134.4	115	23.0
Va 269		8	119.7	103	20.4
Va 280		7	125.4	108	20.9
Va 281		15	114.5	98	21.0
Va 285		8	135.2	116	21.6
Va 286		5	120.7	104	21.3
Va 288		4	110.7	95	23.6
O+M 761		2	134.9	116	22.7
Va 289		14	121.6	104	23.0
Va 290		12	99.9	86	23.0
Va 291		9	131.1	113	23.3
Va 292	2	9	119.6	103	23.8
Va 283		10	113.9	98	23.7

Table 24 continued.

Pedigree	Percent lodged	Percent broken	Bu. per acre	Relative yield <sup>1/</sup>	Percent H <sub>2</sub> O
Va 294		13	106.3	91	22.4
Va 295	1	10	112.6	97	22.1
Va 296		13	108.1	93	21.6
Va 297		10	112.0	96	20.6
Va 298		12	83.0	71	23.1
Va 226		13	118.0	101	22.3
Va 227		11	134.6	116	22.8
Va 219		8	119.8	103	23.0
Va 237		10	131.6	113	21.2
Va 556		6	107.1	92	22.9
Va 239		6	130.4	112	21.7
Va 240	1	13	124.2	107	22.3
Va 148C		9	112.3	96	23.1
Va 4		8	122.2	105	21.4
O+M 765		3	113.9	98	23.2
DeKa1b 812		9	116.5	100	21.2
Mean of test	0	8	116.4	100	22.1

<sup>1/</sup> Relative to the mean yield of the test.

Planted May 4; harvested, October 1.

Plots: 33' x 40'; No. of reps: 3.

Plants per acre: 23,900.

Cooperator: Harvey Carpenter, Jr.,  
Carpenter's Seed Cleaning Plant.

Table 25. Performance of Experimental Double Crosses, Orange, 1962.

Pedigree	% lodg.	% brok.	Bu. per acre	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qual- ity score <sup>2/</sup>	Ears/ 100 plants	Ear ht. ft.	Husk <sup>3/</sup>
DeKalb 633	4	11	141.6	97	22.4	4.3	96	4.2	4.7
Va 244	15	13	160.1	109	22.3	5.0	97	3.8	3.7
Va 245		2	144.9	99	22.0	4.7	100	3.8	3.7
Va 246	11	8	144.9	99	23.7	5.0	101	4.0	3.3
Va 247	9	5	137.2	94	23.0	4.7	101	3.7	3.0
Va 248	4	6	140.1	96	21.9	4.2	101	3.8	3.3
Va 249	3	1	141.6	97	22.2	5.0	98	3.5	3.7
Va 250	4	2	156.9	107	21.2	5.0	98	3.7	3.7
Va 251	8	9	148.7	101	21.9	4.8	100	3.8	3.3
VPI 646	13	5	141.2	96	22.2	4.5	98	3.8	3.7
Va 252	6	6	142.0	97	21.0	4.8	99	3.8	4.0
Va 253	2	5	142.7	97	20.8	5.0	98	3.7	4.0
Va 254	4	4	154.0	105	21.0	4.7	104	3.8	3.7
Va 255	4	1	143.1	98	22.6	4.5	99	3.8	3.7
Va 256	1	4	141.2	96	20.5	4.0	98	3.8	4.0
Va 257	9	5	153.0	104	23.2	5.0	98	4.0	4.0
Va 258	6	6	151.1	103	23.8	5.0	96	3.8	3.3
Va 259	12	4	150.3	102	23.0	4.8	99	4.0	4.3
Va 260	16	15	133.3	91	22.9	4.7	98	3.8	3.3
Va 261	10	8	146.6	100	22.3	4.3	99	3.8	3.7
Va 262	7	9	136.5	93	22.3	3.8	98	3.5	3.7
Va 263	8	4	134.3	92	21.3	4.7	104	3.8	4.0
Va 264	8	4	162.0	110	23.0	4.8	99	3.8	3.0
Va 265	3	13	150.9	103	21.9	4.5	100	4.0	3.7
VPI 648	6	1	148.2	101	21.6	4.8	99	4.2	3.0
Va 266	8	4	143.9	98	23.1	4.5	98	4.0	3.7
Va 267	12	16	150.4	103	22.5	4.3	99	3.8	3.0
Va 268	10	10	141.8	97	21.3	5.0	99	3.8	2.7
Va 269	10	7	154.5	105	20.5	4.5	98	3.8	3.0
Va 280	8	9	148.8	101	21.6	4.5	101	3.7	3.3
Va 281	8	12	138.1	94	20.8	4.8	99	3.7	4.0
Va 285	2	8	141.9	97	22.0	4.0	106	3.8	3.7
Va 286	9	3	144.9	99	23.3	4.7	102	3.8	3.3
Va 288	11	5	145.3	99	23.1	4.5	97	4.0	4.0
Funk G144	7	7	148.5	101	23.9	4.3	104	3.7	4.7
Va 289	30	6	152.9	105	22.3	4.7	104	4.2	3.7
Va 290	7	11	151.8	103	22.5	4.8	99	4.3	4.3
Va 291	5	5	152.8	104	21.6	4.5	100	4.2	4.0
Va 292	21	11	157.0	107	23.0	4.3	103	4.3	2.7
Va 293	17	9	144.1	98	21.9	4.5	99	4.0	3.0
Va 294	5	4	153.4	105	21.8	5.0	100	3.8	3.7
Va 295	7	4	150.0	102	22.1	5.0	100	4.3	3.3
Va 296	25	11	140.0	95	21.4	4.5	96	4.0	2.7
Va 297	3	11	142.1	97	22.8	4.2	96	3.7	4.0
Va 298	14	9	132.2	90	23.2	4.3	91	4.0	3.3
Va 226	14	10	158.5	108	23.5	4.7	100	4.3	4.0
Va 227	11	5	158.8	108	25.0	5.0	100	4.2	3.3
Va 219	6	6	154.3	105	23.4	4.8	100	4.0	4.0
Va 237	6	4	147.9	101	23.5	3.7	98	4.0	3.7
Va 556	12	10	143.9	98	22.8	4.5	96	4.2	3.0
Va 239	15	3	138.3	94	22.5	4.3	95	4.2	3.7
Va 240	14	11	148.3	101	20.9	4.8	99	4.0	4.0
Va 148C	14	8	142.4	97	21.1	3.8	98	4.0	3.3
Va 4	4	3	144.4	98	21.6	4.5	96	4.2	3.7
Pioneer 329	9	4	146.0	100	20.5	4.0	98	3.7	3.3
Pioneer 345A	9	12	152.7	104	19.9	3.5	97	3.8	3.7
Mean of test 9		6	146.7	100	22.2	4.5	99	3.9	3.6

<sup>1/</sup> Relative to the mean yield of the test.<sup>2/</sup> 1 = very poor to 5 = very good.<sup>3/</sup> 1 = short to 5 = long.

Planted April 25; harvested September 25.

Plots: 33' x 3'; No. of reps: 3.

Plants per acre: 19,800.

Cooperator: G. D. Jones,

Piedmont Research Station

Table 26. Performance of Experimental Double Crosses, Holland, 1962.

Pedigree	% lodg.	% brok.	Bu. per acre	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qual- ity score <sup>2/</sup>	Ears/ 100 plants	Ear Ht. ft.	Husk <sup>3/</sup>
DeKalb 633		10	132.2	96	18.1	3.7	99	4.0	3.0
Va 244		13	137.0	99	19.0	4.0	99	3.8	3.0
Va 245		3	139.9	102	19.0	4.2	94	3.8	3.0
Va 246		3	136.1	99	20.0	3.7	96	3.8	2.8
Va 247	1	10	133.9	97	18.3	3.8	92	3.8	3.0
Va 248		4	130.5	95	18.1	3.7	101	3.7	2.7
Va 249			137.6	100	18.1	3.8	95	3.5	2.7
Va 250		2	137.6	100	19.3	4.0	96	3.8	2.8
Va 251		4	136.1	99	18.5	4.0	96	3.8	3.0
VPI 646		7	150.2	109	18.4	3.8	99	4.2	2.7
Va 252		10	126.0	91	17.6	3.8	99	3.8	3.0
Va 253	3	10	123.7	90	18.4	4.0	97	3.5	3.0
Va 254		4	131.6	96	19.1	4.3	96	3.7	3.0
Va 255		1	141.6	103	19.7	4.0	99	3.8	3.0
Va 256		5	124.9	91	18.4	4.0	93	3.7	3.0
Va 257	2	13	143.3	104	18.5	3.8	98	4.5	3.0
Va 258		10	132.6	96	19.4	3.8	90	3.8	3.0
Va 259		4	142.7	104	20.9	3.8	95	4.0	2.8
Va 260	7	19	131.8	96	18.8	4.0	98	3.7	2.8
Va 261	1	10	132.6	96	18.7	3.8	94	3.7	3.0
Va 262		8	125.0	91	19.9	3.7	95	3.5	2.8
Va 263		6	126.2	92	17.7	4.0	99	3.8	3.0
Va 264		5	149.5	109	20.3	3.8	100	4.0	2.8
Va 265		9	127.3	92	18.1	3.5	98	3.7	3.0
VPI 648		3	151.7	110	19.6	4.0	102	4.3	2.5
Va 266		2	135.4	98	19.3	3.8	98	4.0	3.0
Va 267		4	129.5	94	18.6	3.5	95	3.8	3.0
Va 268		2	140.6	102	18.2	3.8	98	3.8	2.8
Va 269		5	146.3	106	17.9	3.8	102	3.7	2.8
Va 280		2	129.4	94	18.0	3.8	102	3.7	2.8
Va 281		9	131.4	95	17.4	4.2	99	3.8	3.0
Va 285		6	135.0	98	18.6	4.0	100	4.0	2.8
Va 286		8	147.8	107	18.5	3.7	100	3.7	3.0
Va 288		7	139.9	102	19.5	4.0	96	3.7	2.8
Funk G144		5	136.5	99	18.7	4.0	104	3.7	3.0
Va 289	1	11	136.5	99	19.7	4.0	97	4.2	2.7
Va 290		8	135.9	99	20.7	3.5	97	4.5	3.0
Va 291	1	2	149.8	109	19.6	4.0	96	4.2	3.0
Va 292	2	7	134.4	98	19.2	3.5	98	4.0	2.5
Va 293		8	137.8	100	20.5	3.8	99	3.8	2.8
Va 294		6	136.9	99	19.4	3.8	95	4.0	2.8
Va 295		5	140.6	102	18.8	3.7	96	4.0	2.8
Va 296		11	138.9	101	18.4	4.0	102	4.0	2.7
Va 297		6	132.5	96	17.6	3.8	102	3.8	3.0
Va 298		7	104.4	76	19.5	3.2	87	4.2	3.0
Va 226		16	139.1	101	19.8	4.0	102	4.0	3.0
Va 227	1	4	145.9	106	20.8	3.7	103	3.8	2.8
Va 219		6	146.1	106	19.1	4.2	98	4.0	2.8
Va 237		4	145.3	105	19.1	4.2	97	4.2	2.8
Va 556		4	126.6	92	19.9	3.8	93	4.0	2.8
Va 239		8	142.3	103	18.3	4.2	100	4.3	2.8
Va 240		8	136.5	99	18.1	3.7	99	4.0	3.0
Va 148C	2	7	143.8	104	20.2	3.7	100	3.8	2.5
Va 4		4	127.7	93	18.9	4.0	96	3.7	3.0
Pioneer 329		6	121.1	88	15.7	3.8	99	4.0	2.8
Pioneer 345A		17	138.4	100	17.6	3.2	100	4.0	3.0
Mean of test 0		6	135.9	100	18.8	3.8	97	3.9	2.9

1/ Relative to the mean yield of the test.

2/ 1 = very poor to 5 = very good.

3/ 1 = short to 5 = long.

Planted April 24; harvested September 18.

Plots: 3' x 33'; No. of reps: 3.

Plants per acre: 19,800.

Cooperator: M. W. Alexander,  
Tidewater Research Station.

Table 27. Performance of Early Experimental Double Crosses, Blacksburg, 1962.

Pedigree	% lodg.brok.	% acre	Bu. per acre	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qual- ity score <sup>2/</sup>	Ears/ 100 plants	Ear ht. ft.	Husk <sup>3/</sup>	Leaf blight <sup>4/</sup>
Va 517	5		124.2	105	23.4	33	87	3.0	2.3	1.8
Va 88	7		115.6	98	22.1	30	85	2.5	3.3	1.7
Va 270	9		133.6	113	24.5	27	85	2.7	2.3	2.2
Va 271	13		131.7	111	25.6	35	74	2.8	3.0	2.2
Pioneer 329	7		113.2	95	23.2	28	79	3.3	3.3	2.0
Va 272	6		122.3	103	24.0	30	81	3.2	2.7	1.5
Va 273	6		124.1	105	23.8	35	85	3.0	2.3	1.3
Va 274	6		117.9	99	23.9	37	83	2.8	2.3	2.0
Va 276	12		115.0	97	21.8	30	87	3.0	2.7	2.3
Va 277	23		110.6	93	23.2	30	74	3.0	3.3	2.2
Pioneer 345A	26		122.8	104	22.3	32	83	3.0	4.0	2.7
Va 278	5		126.2	106	24.3	30	83	2.7	3.3	1.5
Va 279	14		114.3	96	23.5	33	92	2.8	3.0	1.7
Va 282	30		116.4	98	22.0	27	79	2.7	3.3	2.0
Va 283	11		115.0	97	26.5	27	78	2.8	4.0	1.2
Va 284	10		118.9	100	24.2	38	83	3.0	2.7	1.8
Va 244	12		119.5	101	25.8	35	80	3.3	3.7	2.0
PAG 418	6		123.5	104	27.8	33	83	3.0	3.3	.8
Va 299	6		115.7	98	26.8	28	84	3.3	3.3	1.7
Va 300	16		109.7	93	24.3	35	87	3.3	2.7	1.5
Va 301	18		109.7	93	23.0	33	78	3.3	3.0	1.8
Va 302	5		122.9	104	23.8	33	81	3.8	2.7	1.7
Va 303	25		97.4	82	22.0	33	73	3.2	3.7	2.0
Va 4	7		131.3	111	24.8	37	78	2.8	3.3	1.5
Funk G72	9		112.4	95	26.9	35	84	3.0	4.0	1.2
Mean of test	11		118.5	100	24.1	32	81	3.0	3.1	

<sup>1/</sup> Relative to the mean yield of the test.

<sup>2/</sup> 1 = very poor to 5 = very good.

<sup>3/</sup> 1 = short to 5 = long.

<sup>4/</sup> 1 = very good to 5 = very poor.

Planted May 4, harvested October 9.

Plot size: 3' x 33'. No. of reps: 3.

Plants per acre: 22,000.



Table 28. Performance of Early Experimental Double Crosses Mitchells, 1962.

Pedigree	Percent lodged	Percent broken	Bu. per acre	Relative yield <sup>1/</sup>	Percent H <sub>2</sub> O
Va 517		5	128.2	104	18.1
Va 88		4	111.7	90	17.7
Va 270		4	120.4	97	17.4
Va 271	4	8	144.0	116	18.3
Pioneer 329		8	127.6	103	16.9
Va 272		4	104.3	84	17.5
Va 273	1	3	122.5	99	17.9
Va 274	2	1	117.6	95	18.5
Va 276	3	8	112.7	91	17.2
Va 277	4	13	120.3	97	17.5
Pioneer 345A	1	11	126.8	102	17.7
Va 278		7	124.6	101	17.3
Va 279		7	120.5	97	17.3
Va 282		14	125.7	102	18.2
Va 283		3	118.5	96	18.0
Va 284		5	121.8	98	19.1
Va 244		6	128.8	104	18.4
Pioneer 325A		12	124.5	101	18.7
Va 299	1	8	123.7	100	20.6
Va 300	1	3	134.1	108	17.3
Va 301		5	136.5	110	15.5
Va 302		5	125.8	102	17.1
Va 303		8	113.4	92	16.5
Va 4		3	143.2	116	18.4
Funk G72	1	4	117.8	95	18.1
Mean of test	0	6	123.8	100	17.8

<sup>1/</sup> Relative to the mean yield of the test.

Planted May 1; harvested Oct. 1.

Plot size: 3.3' x 33'. No. of reps: 3.

Plants per acre: 23,900.

Cooperator: Harvey Carpenter, Jr.,  
Carpenter's Seed Cleaning Plant.

Table 29. Performance of Early Experimental Double Crosses, Orange, 1962.

Pedigree	% lodg.	% brok.	Bu. per acre	Relative yield <sup>1/</sup>	% H <sub>2</sub> O	Qual- ity score <sup>2/</sup>	Ears/ 100 plants	% bar- ren	Ear ht. ft.	Husk <sup>3/</sup>
Va 517	17	15	99.9	101	20.1	3.2	97	2	4.0	3.7
Va 88	17	17	104.5	106	19.6	3.3		1	3.8	4.0
Va 270	27	17	110.6	112	19.7	3.3		2	4.0	4.0
Va 271	21	11	111.0	112	19.9	3.7	101	2	3.8	4.3
Pioneer 329	17	27	112.3	114	20.2	4.2	96	6	3.8	4.0
Va 272	9	17	97.5	99	21.2	4.0	102	2	3.7	3.3
Va 273	11	25	115.6	117	20.0	3.8	99	1	4.0	4.0
Va 274	9	19	101.0	102	19.6	3.8	96	2	4.2	4.0
Va 276	8	25	98.2	99	20.5	3.8	96	5	3.8	4.3
Va 277	7	13	92.4	94	19.7	4.0	95	4	3.3	3.7
Pioneer 345A	11	21	112.9	114	21.0	4.5	101	3	3.8	5.0
Va 278	3	24	105.7	107	21.8	3.5	99	2	3.5	4.0
Va 279	20	20	105.5	107	24.0	3.7	99	1	3.8	4.0
Va 282	10	26	108.0	109	19.9	4.5	100	1	3.7	4.0
Va 283	5	16	110.5	112	18.3	3.7	101	2	3.7	4.0
Va 284	7	24	102.1	103	21.2	4.5	101	2	3.8	4.3
Va 244	9	14	115.2	117	21.1	4.2	100	1	3.7	3.7
PAG 418	6	33	120.8	122	20.3	4.2	101	2	3.8	4.3
Va 299	13	38	110.2	111	19.3	4.3	103	1	3.7	4.0
Va 300	13	13	113.4	115	21.0	4.3	99	4	3.8	4.3
Va 301	8	22	108.4	110	21.0	4.3	101	1	3.7	4.0
Va 302	4	21	104.8	106	19.8	3.7	102	1	4.0	4.0
Va 303	9	23	98.0	99	21.1	4.0	101	3	3.8	4.0
Va 4	19	19	115.4	117	18.9	4.2	101	1	3.8	4.0
Funk G72	19	20	111.2	113	18.0	4.3	100	1	3.8	4.3
Mean of test	11	20	107.4	100	19.5	3.9	91	2	3.8	4.1

1/ Relative to the mean yield of the test.

2/ 1 = very poor to 5 = very good.

3/ 1 = short to 5 = long.

Planted April 25; harvested September 24.

Plot size: 3' x 33'; No. of reps: 3.

Plants per acre: 19,800.

Cooperator: G. D. Jones,  
Piedmont Research Station