		7546⑧ I ×	7546⑧ II	7546⑨ I	7566B ×	7567 I ×	7535-10 ×	7536-9 ×	7569-① I	7569 ① I
		7535-31	7535-31	7535-31	7535-2	7535 4	7567	7567	7535-13	7535-2
Uniformly pigmented BI										
	Wx	35	9	46	31	10	25	22	37	29
	wx	16	12	9	3	12	4	9	6	5
" " bt										
	Wx	3	0	8	6	0	2	2	8	6
	wx	0	1		0	0	0		0	1
Reflexus - mottled BI										
	Wx	0	0	0	0	0	0			
	wx	0	0	0	0	0	0			
" " bt										
	Wx	0	0	0	0	0	0			
	wx	0	0	0	0	0	0			
$a_2 \to A_2$ BI 2 spw										
	Wx	48	29	13	18	28	89	94	13	7
	wx	44	19	40	8	26	37	84	40	11
4 spw										
	Wx	10	26	4	36	53	10			6
	wx	30	18	35	50	63	48			27
" bt	Wx	3	0	2	12	6	12	3	2	1
	wx	5	3	4	9	6	11	0	6	2
Colorless BI										
	Wx	9	4	7	35	36	11	16	4	12
	wx	9	6	5	24	20	10	14	5	16
Colorless bt.	Wx + wx	190	116	179	166	227	240	215	82	95

Transposed spin from Wx + / wx spin parent. $a_2^{m'}(A_2)$ BI / a_2 bt × a_2 bt wx no spin
" C.O. selected

	Uniformly pigmented BI		bt		Diffuse-mottled BI		bt		$a_2 \to A_2$ BI		bt		Colorless BI		bt		
	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx + wx		
7560 ③ I	70	56	2	4	7	15	0	1	12	10	0	1	4	6	185		
" ③ II	33	44	4	3	0	0	0	0		1			3	4	85		
" ③ I	22	21	1	0	0	0	0	0	22	23			2	4	54 + discard		
7560-6	31	31	4	3	0	0	0	0	28	36	2	0	6	5	136		
7563-2 I	58	46	3	1	0	0	0	0	52	57	1	0	4	7	198		
" -2 II	38	38	4	2	0	0	0	0	28	28	1	2	2	6	126		
7569 ⑤ I	27	28	4	0	1	4	4	7	14	13			11	10	75		
7570 A-7 I	6	3	1	0	0	0	0	0	11	7	0	3	3	1	20		
" " 7 II	7	3	0	1	0	0	0	0	2	7	3	3	3	0	20		
	Wx, Wx plus 1 spin, not linked to wx or Wx																
7591 B ④ I	43	43	2	4	0	0	0	0	12	14	4	0	5	6	110		
" ④ II	19	20	1	0	0	0	0	0	24	21	2	3	5	6	104		
7597 B-3	48	45	2	4	0	0	0	0	48	45	5	1	8	8	175		
" B-4	47	57	10	5	6	7	0	0	31	30	0	2	11	8	145		

Wx wx plus 1 spin

7777 A+B a_2^{m1} (A_2) BI / a_2 bt Wx Spm / Sm49 × a_2 bt wx ko Spm ♂

		uniformly Pigmented BI		bt		Brecheiden BI		bt		variegated $a_2 \to A_2$ BI		bt*		Colorless BI		bt		Totals
♀	♂	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx+wx		
7777A-1 I	7815-7	83	136	9	8	10	0	0	0	18	1	1	0	9	12	241		
" A-1 II	7815-33	10	12	0	0	0	0	0	0	7	0	0	0	0	1	20		
" 1-t-1	7814-12	1	83	0	4	8	0	0	0	61	1	5	0	2	2	157		
" 1 t-2	7815-8	sectorial ear, see below																
" 1 t-3	7815-	9	93	2	4	15	0	1	0	71	3	2	0	12	5	158		
" A-2 t	7815-33	3	32	0	2	1	0	0	0	38	2	2	0	3	4	61		
" A-3 I	7815-33	32	73	6	10	13	1	0	0	22	1	3	0	10	12	161		
" A-4 t	" -13	4	51	1	2	3	0	0	0	52	5	2	0	8	4	96		
" B-1 t	7815-8	0	28	0	1	0	0	0	0	18	0	0	1	1	0	63		
" B-2 I	" -13	20	111	0	3	12	1	1	0	75	3	5	0	12	11	229		
" B-2 t-1	" -33	3	82	1	1	0	0	0	0	79	1	4	1	3	5	182		
" B-2 t-2	" "	2	74	0	6	0	0	0	0	90	1	5	0	6	4	157		
" B-3 I	" "	12	50	0	2	3	0	0	0	29	0	2	0	2	5	126		
" B-4 I	" "	27	103	0	5	17	0	1	0	56	3	6	0	11	6	211		
" B-4 II	" "	29	58	4	5	5	0	1	0	21	0	2	0	4	3	120		
" B-4 I	" -8	1	35	0	1	0	0	0	0	55	1	1	0	3	3	92		
sectorial Ear.																		
7777A-1 t	retrospin	0	3	0	0	4	0	0	0	4	0	1	0	0	2	8		
	anetrospin	34	30	2	2	0	0	0	0	0	0	0	0	1	2	58		

7777 Wx + spm / wx + 4 ♀ ♂ bt wx 1 spm ♂ 2 spm / spm ♂

		7777A-2 ♀ x	7777A-4 ♀ x 7/26	7777B-1 ♀ x 7/21		7777C-1 ♀ x 7/26	7777D-1 ♀ x 7/26	7777D-3 ♀ x 7/26		7777D-4 ♀ x 7/21	
		7818B-5 7/21 Spm/Spm ♂	7818B-8 1 spm ♂	7818B-5 Spm/Spm ♂	Totals	7818B-8 1 spm	7818B-8 1 spm	7818B-8 1 spm	Totals	7818B-4 Spm/Spm	Totals
Uniformly Pigmented	BT										
	wx	3	51	4		76	38	51	165	0	
	wx	2	38	4		71	31	52	154	8	
" "	bt										
	wx	0	5	1		1	2	5	8	0	
	wx	0	8	0		3	7	4	14	0	
Diffuse-mottled	BT										
	wx	0	1	1		0	0	0	0	0	
	wx	0	0	0		0	0	0	0	0	
" "	bt										
	wx	0	0	0		0	0	0	0	0	
" "	wx	0	0	0		0	0	0	0	0	
Var. BT	1 spm										
	wx	3	1	1	5	2	0	0	2	2	4
	wx	58	28	74	158	69	37	36	142	91	233
	2 3 spm										
	wx	58	32	98	188	51	30	32	113	113	226
	wx	3	3	2	8	4	0	2	6	7	13
" bt	1 spm										
	wx	0	0	0	0	1	0	0	1	0	1
	wx	0	2	1	3	3	3	5	11	4	15
	2+3 spm										
	wx	3	3	4	10	–	1	–	1	8	9
	wx	1	0	–	1	–	0	–	0	0	0
Colorless	BT										
	wx	2	6	3	11	7	7	10	24	2	26
	wx	2	4	7	13	6	5	7	18	5	23
Colorless bt	wx + wx	161	171	181		233	134	163	530	215	

7777C, D. a_2 mi (A2) BI / a_2 bt W+5pm / m4 + 9 × a_2 bt m4 m5pm o7

		A2 BI		bt		affine-mated BI		bt		variegated BI		bt		Colorless BI		bt	
9	o7	W+	m4	W+	m4	W+	m4	W+	m4	W+	m4	W+	m4	W+	m4	W+ + m4	Totals
7777C-2[I]	7815-33	111	114	6	4	0	0	0	0	1	0	0	0	3	12	187	
" -2[II]	7814-12	68	56	3	2	1	0	0	0	4	0	0	0	2	4	144	
" C-3	7815-33	69	69	3	4	0	0	0	0	1	0	0	0	6	5	152	
" C-3[I]	" -18	22	21	0	0	1	0	0	0	1	0	0	0	0	2	46	
" C-4[I]	" -3	88	87	5	4	0	0	0	0	0	0	0	0	3	9	158	
" D-1[t-1]	" -18	23	22	1	3	0	0	0	0	0	0	0	0	2	1	57	
" D-1[t-2]	" -18	23	22	2	0	0	0	0	0	0	0	0	0	1	0	29	
" D-2	" -33	104	71	6	7	0	0	0	0	0	0	0	0	5	5	192	
" D-3[I]	" -18	27	19	1	0	0	0	0	0	0	0	0	0	0	1	28	
" D-4[I]	" -33	2	7	0	0	0	0	0	0	0	0	0	0	0	0	8	
Totals		537	488	27	24	2	0	0	0	7	0	0	0	22	39	1001	

7306 B-1 $\frac{\text{Spur } (A_2) \text{ BI } P_2}{+ \; q_2 s \; bt \; p_2}$ Wx+/wx Spur

Part of plant	Type of Cross		Uniformly Pigmented BI Wx	BI wx	bt Wx	bt wx	variegated BI Wx	BI wx	bt Wx	bt wx	Colorless BI Wx	BI wx	bt Wx+wx	
I	1		9	-	0	-	181	-	10	-	13	-	185	398
II	2		4	3	1	0	68	80	3	3	2	7	189	360
tiller-1	2		7	2	0	0	69	63	2	3	4	10	152	312
tiller-2	2		19	1	0	0	8	22	0	0	3	0	42	95
tiller-3	2		3	1	0	0	31	40	1	5	4	4	86	175
Totals-	type-2		33	7	1	0	176	205	6	11	13	21	469	942

variegated BI

		2 Spur Wx	2 Spur wx	4 Spur Wx	4 Spur wx	Total
7306B-(I)	II	51	22	17	58	148
"	t-1	54	15	12	51	132
"	t-2	8	16	10	6	30
"	t-3	26	16	5	24	71
Totals		139	69	34	139	381
Totals, nurses t-2		131	53	34	133	351

Work Tables

7312 a_2^{m1}(pale) BI / a_2^{m1}(A_2) BI

7312
7313
7582
Tables.

Plant number	Position of Ear	Type of cross	Uniform pale Wt	Uniform pale wt	Uniform A_2 Wt	Uniform A_2 wt	var. pale state Wt	var. pale state wt	var. A_2 state Wt	var. A_2 state wt				
7312-1	I	1	9	-	9	-	0	-	0	-				
" - 3	I	1	95	-	89	-	0	-	0	-				
" - 4	I	1	3	-	1	-	5	-	3	-				
" - 5		2	62	5	55	2	7	68	4	49				
" - 6		1	31	-	27	-	0	-	1	-				
" - 6	Tiller-1	2	16	23	22	21	0	0	0	1				
" - 6	Tiller-2	2	33	26	35	26	1	3	0	1	plus 1 Breakdown wt (A_2) state			
Totals, t-1 + t-2			49	49	57	47	1	3		2	1	"		

Plant no.	Type of Cross	Ear location	Pigmented BT Wx	Pigmented BT wx	Pigmented bt Wx	Pigmented bt wx	Colorless spots or specks of pigment BT Wx	Colorless spots or specks of pigment BT wx	Colorless spots or specks of pigment bt Wx	Colorless spots or specks of pigment bt wx	Colorless BT Wx	Colorless BT wx	Colorless bt Wx + wx
7313A-1	1	1st ear, main stalk	123	-	5	-	26	-	1	-	6	-	164
" A-2	1	"	256	-	11	-	6	-	2	-	16	-	234
" " "	2	tiller	83	5	2	1	6	67	0	3	3	3	193
" B-1	2	1st ear, main stalk	53	22	6	2	5	18	0	1	3	2	121
" B-2	1	"	195	-	15	-	5	-	2	-	22	-	226
" B-3	2	"	81	54	6	3	0	13	0	1	2	2	135
" B-4	2	"	29	24	1	0	74	58	4	1	5	7	206
" " "	1	tiller-1	64	-	4	-	46	-	2	-	4	-	125
" " "	2	tiller-2	25	2	1	0	8	35	0	0	1	0	45
" B-5	1	1st ear, main stalk	101	-	10	-	98	-	4	-	17	-	228
" B-5	2	2nd ear, main stalk	53	-	5	-	45	-	0	-	6	-	100
7582A	2	1st ear, main stalk	113	88			0	0	0	0	9	5	185
7582A-I	3 1 spm	tiller	45	29	1	1	1 spm 36	3	0	0	11	6	138
					3 spm =		1	42	0	3			
7582B-1	3 1 spm	1st ear, main stalk	34	45	1	1	33	49*	1	2	3	5	140
" B-2	3 1 spm	"	65	64	3	8			9	6	15	11	266
					1 spm		56		4				
					3 spm		9		58				
7582B-3 I	3 spm + spm	"	27	24	2	0	75	98*	6	10	16	28	225

~~Table 20~~

Phenotype of kernel

A.

Plant number	Position of ear	uniform pig BI Wx	uniform pig BI ux	uniform pig bt Wx	uniform pig bt ux	variegated BI Wx	variegated BI ux	variegated bt Wx	variegated bt ux	colorless BI Wx	colorless BI ux	colorless bt Wx + ux	Totals		% recombination
7309A-3	1st, main	38	11	0	1	5	32	1	2	4	4	93	191		
" A-3	tiller	45	11	3	0	7	41	0	3	7	3	112	232		
" A-4	tiller-1	57	2	1	0	8	60	0	4	2	5	118	257		
" A-5	tiller-1	76	10	5	1	11	68	2	3	4	5	158	343		
" A-8	1st, main	41	2	4	0	5	34	0	6	4	6	98	200		
Totals		257	36	13	2	36	235	3	18	21	23	579	1223		12.8%

~~Table 21~~ A

♀ a_2^{m-1} (class II) BI | a_2^{m-1} (class II) BI Wx+/ux spm x ♂ $a_2$bt/ $a_2$bt, ux/ux, no spm

7308A-4	2nd, main	107	14	-	-	12	117	-	-	0	0	-	-	250	
" B-2	1st, main	186	32	-	-	23	162	-	-	0	1	-	-	404	
" B-4	1st, main	21	1	-	-	0	15	-	-	0	0	-	-	37	
" B-4	tiller-1	28	2	-	-	2	26	-	-	0	0	-	-	58	
" B-4	" -2	13	4	-	-	0	11	-	-	1	0	-	-	29	
Totals		355	53	-	-	37	331	-	-	1	1			778	11.5%

B.

♀ a_2^{m-1} (class II) BI | $a_2$bt; Wx+/ux spm x ♂ $a_2$bt/ $a_2$bt, ux/ux, no spm

7308B-1	tiller-1	46	10	2	1	6	64	1	2	5	6	83	226		
" B-1	tiller-2	29	10	3	1	4	39	2	4	3	6	89	190		
" B-1	tiller-3	17	2	2	1	3	18	0	1	0	2	47	93		
Totals		92	22	7	3	13	121	3	7	8	14	219	509		15.3%

Table 21 D

		A2		Colorless, spots of A2						
				BI		bt	Colorless			
		BI	bt	2 spm	High dose spm		BI	bt		Totals
7308B-3	1st, main	4	5	75	43	8	36	176		347
" C-1	1st, main	52	6	49	42	10	12	132		303
" C-1	2nd, "	8	3	24	5	3	6	45		94
" C-1	tiller-1	40	3	53	36	11	20	143		306
" C-1	tiller-2	12	2	40	41	6	27	88		216
	Totals for C-1	112	14	166	124	30	65	408		919
" C-2	1st, main	0	–	6	68	–	51	–		125
" C-3	1st, main	10	2	149	15	10	15	166		367
" "	2nd	6	0	149	4	3	10	163		335
	Totals for C-3									
" C-4	1st, main	45	3	59	34	10	28	169		348
" C-5	1st, main	0	–	0	6	–	10	–		16
" C-6	1st, main	8	–	158	158	–	4	–		328
" "	2nd, main	5	–	95	114	–	5	–		219
" "	tiller	2	–	41	59	–	0	–		102
	Totals C-6	15	–	294	331	–	9	–		649

7554A - a_2 m' (A_2) BI / a_2 bt ; Wx + / wx Spm - inactive ♀ × $a_2$bt/$a_2$bt, wx/wx, no Spm ♂

Plant number	Ear location	A_2 BI Wx	A_2 BI wx	A_2 bt Wx	A_2 bt wx	Break-down BI Wx	Break-down BI wx	Break-down bt Wx	Break-down bt wx	Colorless spots of pigment BI Wx	Colorless spots of pigment BI wx	Colorless spots of pigment bt Wx	Colorless spots of pigment bt wx	Colorless BI Wx	Colorless BI wx	Colorless bt Wx + wx	Total
7554A-1	1st, main stack	109	103	8	3	0	4	0	0	0	1	0	0	8	2	196	
" -1	2nd " "	74	73	7	1	1	1	0	0	0	1	0	0	2	2	144	
" -1	tiller	78	67	3	2	0	7	0	0	0	2	0	0	3	4	179	
Totals		261	243	18	6	1	12	0	0	0	4	0	0	13	8	519	
7554A-3	tiller	21	15	1	0	0	0	0	0	0	0	0	0	1	0	29	
7554A-4	1st, main	88	92	0	5	0	0	0	0	1	0	0	0	9	4	160	
" "	2nd, "	12	16	1	1	0	0	0	0	0	4	0	0	1	0	43	
" "	tiller	24	8	0	0	0	3	0	1	0	6	0	0	1	1	49	
Totals - A-4		124	116	1	6	0	3	0	1	1	10	0	0	11	5	252	
7554A-5	1st, main	52	32	4	2	0	0	0	0	0	0	0	0	6	4	106	
" "	tiller-1	107	104	3	7	0	3	1	0	0	3	0	1	11	5	209	
" "	tiller-2	12	15	2	0	0	3	0	1	0	1	0	0	1	1	33	
Totals, A-5		171	151	9	9	0	6	1	1	0	4	0	1	18	10	348	
Totals	1 Spm kernels					1	21	1	2	1	18	0	1	= 3 Wx :	42 wx =	6.6%	Recombination

7554A-3 I ♀ × 7538 ① ♂ $a_2$bt wx Spm-active	A_2 BI Wx	A_2 BI wx	A_2 bt Wx	A_2 bt wx	$a_2 \to A_2$ BI 1 Spm Wx	$a_2 \to A_2$ BI 1 Spm wx	$a_2 \to A_2$ BI highdose Wx	$a_2 \to A_2$ BI highdose wx	bt 1 Spm Wx	bt 1 Spm wx	bt highdose Wx	bt highdose wx	Colorless BI Wx	Colorless BI wx	Colorless bt Wx + wx
	14	10	0	2	81	11	16	72	5	1	2	5	1	4	185

For table 3 A

Type of cross

1 = a_2 bt Wx no Spm
2 = " wx " "
3 = a_2 bt wx Spm

Cross

7309	ear		I	II	tiller-1	tiller-2	tiller-3	pollen		
A-1			2	2						
A-2			2							
A-3			2		2					
A-4				2	2	2				
A-5			2		2	1				
A-6			2	2						
A-7			2							
A-8			2							
A-9			2							
B-1			3		1			1		
B-2			3					1		
B-3			3					1		
B-4			3					1		

For Table 3 B

Type of cross

1 = a₂bt Wx no Spm
2 = " " wx " "
3 = " " " spm

7308

Cross

			I	II	t-1	t-2	t-3	pollen		
A-1			3	1						
A-2			3							
A-3			3		2					
A-4			3	2	3					
A-5								1		
A-6			3							
B-1			1		2	2	2			
B-2			2							
B-3			1							
B-4			2		2	2				
B-5	(no spm)		2		1	2				
C-1			1	1	1	1				
C-2			1							
C-3			1	1						
C-4			1							
C-5			1							
C-6			1	1	1					
7570										
A-1			2	2	2	3	3			
A-2			2	2	2	3				
A-3			2	2						
A-4			2		2	3				
A-5			2		2	2				
A-6			2	2	2					
A-7			2	2						
A-8			2	2						
B-1			2	2	2					
B-2			2			⊗		many - are to 2, 3		
B-3			2		2	2				
C			2	3	2	2		-2		

7554 Type of cross of

Type - 1 = a_2 bt Wx no Spm
" - 2 = " " my " "
" - 3 = " " " Spm
" - 4 = a_2 m-1 bt my no Spm

Ears

			I	II	t-1	t-2	t-3			
A-1			2	2	2					
A-2	no Spm ♀		3	3						
A-3			3		2					
A-4			2	2	2					
A-5			2		2	2				
B-1			2	2	2					
7563										
A-1			2		2	2				
A-2			2	2						
A-3			2	2	2					
A-4			2	2	3	2				
A-5			2	2						
B-1			2		3					
B-2			2	2	2	2	2			
B-3	contamination		2		2	3				
7546										
1			2	3						
2			2	3						
3			2	2	2					
4			2							
5			2	3	2					
6			2	2	2					
7			2	3	2					
8			2	2						
9			2	3 do						
10			2							
11			2							
12			2	3						
7573 A-1			2							
" A-2			4	2						
" A-3			2	4						
" A-4			2							
" A-5			2							
" A-6			2							
" B-1			2							
" B-2			2							
" B-3			4	4	2					
" B-4			4	2						
" B-5			2							
7576			2	2	3					

Spm/spm

♀ × a_2^{m-1} no spm ♂

a_2bt/a_2bt			Unif. pigmented	Breakdown	var.					% no spm
7538-1	(pale ♂)		2	0	75					
" -6	(A_2 ♂)		19	0	238	(228 = 2spm: 10 = "4spm")				
" -10	(pale ♂)		7	0	182					
" R-2	(A_2 ♂)		28	0	207	(190 = 2spm: 17 = "4spm")				
" R-4	(A_2 ♂)		2	0	304	all = 2spm endosperm				
7818A ① $^{z-1}$	(pale ♂)		11	1	200					
" A-① $^{z-2}$	(pale ♂)		5	0	94					
" B-③ $^{z-1}$	(pale ♂)		5	0	213					

To a_2^{m-1} no spm ♀ × 7538 spm/spm ♂

7538-1			62	-	482
" -6			34	-	346
" -10			175	-	1484
" -R-4			93	-	769

a_2^{m-1} no spm ♀ × 7818 spm/spm ♂.

7818B-3			19		164
7818B-4			28		429
7818B-5			14		310

7570C	♀		7		322
" C	♂		10		329

spm/spm plants · From 7308D-2
7570C.

1958										
7538-1										
" -6										
" -10										
" -R-2										
" -R-4										
7570C										
1960										
7818A-1										
" B-3										
" B-4										
" B-5										
" B-9										
" B-11										

7570C

a_2m-1 BE Pr / a_2 bt pr Wx + Spm / wx Spm

			uniform pigmented				colorless, spots of pigment				colorless				
			BT		bt		BT		bt		BT		bt		
♀	♂	date	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx + wx		Totals
7570 C-I	7535-2	8/5	0	0	0	0	53	39	11	6	9	12	100		230
" C II	7538-14	8/8	0	0	0	0	55	59	6	5	2	2	81		210
" t-1	7536-34	8/15	0	1	0	0	14	16	1	1	0	3*	40		76
" t-2	7536-34	8/15	3	2	1	0	20	29	3	4	6	13	70		151
Totals			3	3	1	0	142	143	21	16	17	30	291		667

* 1 plant grown from 3 kernels (7816-2) = a_2m1 BE / a_2 bt plus 3 Spm.

means I, t-1, t-2 BE class of variegated kernels: 0 Spm 1 Spm 2 Spm kiln dried Spm

	0 Spm	1 Spm	2 Spm	kiln dried Spm
ear I	0	0	92	0
t-1	1	1	17	3
t-2	6	1	42	6

			A2		colorless, spots of pigment		colorless	
♀	♂	date	Bt	bt	BT	bt	BT	bt
7535-6 I	7570C	8/6	3	0	130	12	16	122
" -24	"	8/6	3	0	86	11	16	101
" -28	"	8/6	0	0	25	5	6	23
" -29	"	8/6	3	1	58	2	10	55
Totals			9	1	299	30	48	301

A. Table ~~24~~ Phenotypes of kernels on ears of plants in culture 7570 resulting from test cross type-2.

Row I ♀ a_2 m-1 (class II) BI / a_2 bt; Wx + / wx Spm (active) ; Row II, + III Wx Spm / wx +

Plants	Number of ears.		Uniformly pigmented				Spots of pigment in non-pigmented background				Colorless			Totals	% recombination
numbers.			BI		bt		BI		bt		BI		bt		
			Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx and wx		
7570A	13		318	50	46	11	62	319	9	40	75	65	698	1693	15.4
7570B (1st) ♀	~~12~~ 6		19	224	3	28	253	15	42	3	35	29	505	1156	6.8
7570B-2 ♂	6		41	459	3	56	462	51	41	3	61	66	987	2230	8.7
7570C ♀	3		3	3	1	0	87	85	15	11	15	27	210	457	—
" ♂	4		5	4	1	0	139	157	16	13	23	24	303	685	—
7570A-7	2		13	6	1	1	13	14	3	6	6	1	40		
7570A-8	2		49	3	7	0	34	79	5	14	14	17	155		

B.		Uniformly pigmented				Diffuse-mottle				Variegated				Colorless		
		BI		bt		BI		bt		BI		bt		BI	~~bt~~	bt
		Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx+wx
7570A-1	1st ear	7	3	0	1	1	2	0	0	0	3	0	2	2	1	20
" A-1	2nd "	22	10	1	1		2	0	0	0	3	0	1	2	3	23
" A-4	1st ear.	14	16	5	4	0	1	0	0	0	0	0	1	2	3	47

Plant		uniformly pigmented BI		bt		Colorless, spots of pigment. BI				bt		Colorless BI		bt		
Number						1 spin		Hulless spin								
		Wx	ui	Wx	ui	Wx	ui	Wx	ui	Wx	ui	Wx	ui	Wx + ui		
7570A-1	tiller-3	18	2	4	0	25	3	4	38	3	14	11	18	68		
" A-4	tiller-2	18	2	0	1	19	2	8	35	0	6	11	6	60		
TOTals		36	4	4	1	44	5	12	73	3	20	22	24	128		

Tester type-3, 1 active spin, as pollen parent in cross

Rt bt wx 1spm ♀ x 7570B-2 ♂

♀	Date	uniformly pigmented Bt		bt		spots of pigment in colorless background BT 1spm or 2		~~2 or~~ 3 ~~[illegible]~~ spm		bt		colorless BT		bt		
		Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx and wx		
7538-13	7/10	2	23	1	1	22	22	30	0	3	2	3	1	98		
" -14	8/9	1	16	0	0	10	12	10	2	4	0	3	3	57		
	Totals	3	39	1	1	32	34	40	2	7	2	6	4	155		

7570 A-7, A-8 I × a₂ bt wx no spm

7570C

			uniformly pigmented				spots of pigment in colorless background				Colorless				
			BI		bt		BI		bt		BI		bt		
q	♂	date	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx + wx		Totals
7570 C-I	7535-2	8/5	0	0	0	0	53	39	11	6	9	12	100		230
" C-t-1	7536-34	8/15	0	1	0	0	14	17	1	1	0	2	40		76
" C-t-2	" "	8/15	3	2	1	0	20	29	3	4	6	13	70		151 ~~457~~
	Totals		3	3	1	0	87	85	15	11	15	27	210		~~763~~ 457
7535-6 tiller	7570C	8/6	2	1	0	0	61	69	5	7	8	8	122		
" -24	"	8/6													
" -28	"	8/6													
" -29	"	8/6													
Totals															
7570A-7 I	7535-31	8/7	6	3	1	0	11	7	0	3	3	1	20		
" " II	7535-37	8/10	7	3	0	1	2	7	3	3	3	0	20		
	Totals		13	6	1	1	13	14	3	6	6	1	40		
7570A-8 I	7535-37	8/10	27	0	4	0	9	38	1	5	5	9	70		
" " II	" -31	8/7	22	3	3	0	25	41	4	9	9	8	85		
	Totals		49	3	7	0	34	79	5	14	14	17	155		

Summary tables.

Phenotype of Kernel.

Year 1957 Origin	Year 1958 Culture	No. of ears.	Uniformly Pigmented BT Wx	Uniformly Pigmented BT wx	Uniformly Pigmented bt Wx	Uniformly Pigmented bt wx	Colorless, spots of pigment BT Wx	Colorless, spots of pigment BT wx	Colorless, spots of pigment bt Wx	Colorless, spots of pigment bt wx	Colorless BT Wx	Colorless BT wx	Colorless bt Wx and wx	Totals	Percent Recombination
(From 7109B-2)															
7308A-4 ♀	7546	12	650	76	45	5	81	633	10	36	55	70	1464	3125	11.1
	7570B	12	60	683	6	84	715	66	83	6	96	95	1492	3386	8.1
" II	7563	17	141	1419	20	124	1484	121	93	10	132	147	3121	6812	8.5
7308D-1	3	16	967	122	84	15	114	974	10	76	76	99	2114	4651	11.0
7308D-2	5	35	1073	163	130	23	158	1033	18	131	207	143	2369	5448	13.2
7308C-6	7573B	3	159	13	9	2	8	137	0	10	17	9	299	663	[illegible]
	7576	2	109	19	8	2	9	138	0	6	7	14	241	553	10.[illegible]
	Totals	5	268	32	17	4	17	275	0	16	24	23	540	1216	8.4
(From 7109B-1)															
7306 A-1 II	7560	4	18	255	1	11	291	29	17	1	23	17	561	1224	7.8
7307A-3 II	7561	4	34	315	2	26	295	18	21	0	23	29	657	1420	7.6
7307A-5 II	7562	4	26	203	1	12	186	5	7	1	18	12	456	927	[illegible] 4
7307B-2	7572	6	281	58	18	2	60	285	2	13	29	25	674	1447	16.9

Linkage of Spm with Wx or wx in Wx Spm/wx + or Wx+/wx Spm plants;

a_2^{m1} BT/a_2 bt ♀ × $a_2$bt/$a_2$bt; wx/wx, no Spm or

Class II state

From 7109B-2 — Wx + Spm | wx + and Wx + | wx Spm. Class I and class II ratio of 9_2 wx-1

	number of Cons.	uniformly Pigmented BT Wx	BT wx	BT Wx	BT wx	colorless, spots of pigment BT Wx	BT wx	BT Wx	BT wx	Colorless BT Wx	BT wx	Total	% Recombination	
7309A	5	257	36	13	2	36	235	3	18	21	23	579	1223	12.8	
7308A,B	5	355	53	-	-	37	331	-	-	0	1	-	-	777	11.8	
" B-1	3	92	22	7	3	12	121	3	7	8	15	219	509	14.9	
7546	12	650	76	45	5	81	633	10	36	55	70	1464	3,125	11.2	
7570B	12	60	683	6	84	715	66	83	6	96	95	1492	3,386	8.1	
7563	17	141	1419	20	124	1484	121	93	10	132	147	3121	6,812	8.5	
7308C-6															
7573B	3	159	13	9	2	8	137	0	10	17	9	299	663	6.8	
7576	2	109	19	8	2	9	138	0	6	7	14	241	553	10.3	
7308D-1	16	967	122	84	15	114	974	10	76	76	99	2114	4651	11.0	"A" state
" "	21	1220	177	101	19	157	1245	12	115	133	126	2820	6148	11.9	[illegible]
	3	171	14	117	9	18	168	7	114	-	-	-	620	7.7	[illegible]
7308D-2	35	1073	163	130	23	158	1033	18	131	207	143	2369	5448	13.2	"A" state
	18	409	59	47	3	54	412	4	47	75	53	977	2145	11.5	[illegible]
	2	144	23	103	16	15	160	18	143	-	-	-	624	11.5	
7768															
7769	1	74	17	9	0	9	100	1	12	21	21	205	469	7.7	
7780B	14	301	29	39	4	26	260	4	33	52	53	576	1377	9.0	
7781A (7308D-1)	4	114	182	0	17	183	12	25	1	29	48	421	932	6.2	[illegible]

Summary of recombination values for Spm linked to wx allele derived from plant 7109B-2

7456 B-5 a_2 m-1 (class II) Bt | a_2 bt; Wx + | wx Spm (Table C)
7456 C-3

	7456B-5 Intear; ♀	7456B-5 t-1 ♀	7456B-5 t-2 ♀	7456C-3 I × 7308D-2	II ×	t-1 ×	t-2 ×	t-3 ×
Phenotype of kernel	7308D-1 ♂	a_2 bt Wx no Spm ♂	a_2 bt wx no Spm ♂	a_2 bt wx 1 Spm	a_2 bt wx no Spm	a_2 bt Wx no Spm	a_2 bt wx no Spm	a_2 bt wx no Spm
Uniformly dark pigmented kernels.								
Bt Wx	49	101	85	27	52	106	61	79
Bt wx	44	–	35	25	29	–	17	10
bt Wx	7	13	15	1	1	6	1	3
bt wx	7	–	3	3	0	–	0	
"Diffuse-mottled" kernels (see figure-)								
Bt Wx	1	13	2	0	6	31	6	0
Bt wx	6	–	24	0	30	–	46	13
bt Wx	0	1	0	0	0	1	0	1
bt wx	0	–	0	0	1	–	1	0
Colorless with large and small (see figure-) pigmented areas.								
Bt Wx	39	0	0	10	0	0	0	0
Bt wx	10	–	0	4	0	–	0	0
bt Wx	6	0	0	1	0	0	0	0
bt wx	2	–	0	0	0	–	0	0
Colorless with only specks of pigment (see fig-)								
Bt Wx	7	19	8	2	2	59	4	9
Bt wx	39	–	37	20	6	–	28	43
bt Wx	2	1	0	0	0	6	0	0
bt wx	4	–	8	2	1	–	0	3
Colorless Bt								
Wx	18	16	6	2	3	10	9	4
wx	16	–	10	3	5	–	5	0
Colorless bt, Wx and wx	211	113	209	102	141	198	166	152

Table D. 7455 A ② and C ⑤ a_2 mk (class II) BI / a_2 bt wx ux ; 1 spm

	7455A ②I x	7455A ② t-1 ♀	7455A-2 t-2 ♀	7455A-2 t-3 ♀	7455C-5 ‡ ♀	7455C-5 ‡	7455C-5 litter ♀
	a_2 bt ux no spm ♂	a_2 bt wx no spm ♂	7308D-1 a_2 bt ux 1 spm	7308D-2 a_2 bt ux 1 spm	7308D-2 ♂	a_2 bt wx no spm ♂	a_2 bt ux no spm ♂
Uniformly dark pigmented							
BI wx	233	150	53	73	27	97	137
BI ux		—	48	84	39	—	
bt wx	12	11	7	7	5	13	6
bt ux		—				—	
"Riffus-Wolka" pigment							
BI wx	0	38	4		0	0	4
BI ux	0	—	7		0	—	5
bt wx	0		0		0	0	
bt ux	0	—	0		0	—	
Colorless with both large and small areas of color							
BI wx	0	0	26	44	31	0	0
BI ux	0	0	35	35		—	0
bt wx	0	0	1	[illegible]	4	0	0
bt ux	0	0				—	0
Colorless with only small spots or speckling pigment							
BI wx	0	39	32	42	34	0	3
BI ux	0	—	29	41		—	
bt wx	0	0 1)	[illegible]	1	2	0	1
bt ux	0	—				—	
Colorless BI							
wx	17	15	8	17	6	10	6
ux		—	7	4	5	—	5
Colorless bt, wx and ux	220	208	227	321	145	93	170