Table 21

A.

Plant number	number of ears.	a_2^{m-1} carrying kernels. no evidence of Spm in kernel: Wx	wx	Spm ~~present~~ active in all or in part of kernel: Wx	wx	Totals
7554A-1	3	279	249	1	16	545
" A-3	1	22	15	0	0	37
" A-4	3	125	122	1	14	262
" A-5	3	180	160	1	12	353

% recombination: 6.6

B.

		Uniformly Pigmented		Colorless with: Many specks of pigment		Few specks of pigment		
		Wx	wx	Wx	wx	Wx	wx	Total
7554A-3	1	14	12	86	12	18	77	219

% recombination: 15.5

Heading: A Phenotypes of a_2^{m-1} carrying kernels on ears of plants in cultures 7554A produced by cross with plants homozygous for a_2, bt, and wx and carrying no Spm

B. Phenotypes of a_2^{m-1} carrying kernels on first ear of main stalk of plant 7554A produced by cross with a plant homozygous for a_2, bt, and wx and for Spm in its active phase.

Table 22

Plant Number	Direction of Cross	No evidence of Spm in kernel	Spm present in kernel	
7538-1	♀	2	75	
	♂	62	482	
7538-6	♀	19	238	(228 kernels with "2spm" pattern to 10 kernels with "4spm" pattern)
	♂	34	346	
7538-10	♀	7	182	
	♂	175	1484	
7538 R-2	♀	28	207	(190 kernels with "2spm" pattern to 17 kernels with "4spm" pattern)
7538R-4	♀	2	304	(all kernels have "2spm" pattern)
	♂	93	769	
7570C	♀	7	197	(189 kernels with "2spm" pattern : 8 kernels with "4spm" pattern)
	♂	10	325	
7818A-1 Tiller-1	♀	11	201	
" " Tiller-2	♀	5	94	
7818 B-3	♀	5	213	
	♂	19	164	
7818 B-4	♂	28	429	
" B-5	♂	14	310	
7308C-3 I	♀	12	174	(159 with "2spm" pattern : 15 with "4spm" pattern)
" " II	♀	6	156	(153 " " " : 4 " " ")

Heading:

Number of kernels showing no evidence of Spm to those exhibiting its presence on ears produced by crosses of no Spm plants with those that carried two active Spm elements, located in ~~xxxxxx~~ a pair of homologous chromosomes and probably at allelic position in each member of the pair. Plants in cultures 7538 and 7818 were homozygous for a_2 and were crossed with no Spm plants that carried either a class I or the calss II state of a_2^{m-1}. Plant 7570C carried a_2^{m-1} (class II) and it was crossed reciprocally with plants homozygous for a_2 in which no Spm was present.

Plant 7308 C-3 carried a_2 m-1 (Class II) and its two ears were used in a cross with a plant homozygous for a_2 and having no Spm.

	no S pm	2S pm	4S pm
7538-6	19	228	10
" R-2	28	190	17
" R-4	2	304	0
7570C	7	~~313~~ 197	8
7308C-3-I	12	159	15
" -3 II	6	152	4
Totals	74	~~1346~~ 1230	54
	" ~~5.2%~~		" ~~3.9%~~

Total = ~~1401~~ 1358

Table 23 Types of test cross conducted with plants in Cultivar 7570

Plant number	Spm Constitution and location	Position of ear in plant: 1st ear main stalk	2nd ear main stalk	ear of tiller-1	ear of tiller-2	ear of tiller-3	Pollen used in cross to tester type
7570 A-1	Wx+/wx Spm	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	Wx+/wx; 1 Spm	2	2				
" A-8	Wx+/wx Spm plus 1 Spm	2	2				
" B-1	Wx Spm/wx+	2	2	2			
" B-2	" "	2			self-pollinated		2 and 3
" B-3	" "	2		2	2		
C	Wx Spm/wx Spm	2	3	2	2		2

Tester type-2 : a2bt/a2bt, wx/wx, no Spm

" " -3 : " " " " 1 or 2 active Spm.

Table 24

Phenotypes of kernels.

A.

Culture number	Direction of cross ↓ number of ears	Uniformly Pigmented BI Wx	Uniformly Pigmented BI wx	Uniformly Pigmented bt Wx	Uniformly Pigmented bt wx	Pigmented spots in colorless background BI Wx	Pigmented spots in colorless background BI wx	Pigmented spots in colorless background bt Wx	Pigmented spots in colorless background bt wx	Colorless BI Wx	Colorless BI wx	Colorless bt Wx and wx	Totals
7570A ♀	13	318	50	46	11	62	319	9	40	75	65	698	1693
7570B ♀	6	19	224	3	28	253	15	42	3	35	29	505	1156
7570B-2 ♂	6	41	459	3	56	462	51	41	3	61	66	987	2230
7570C ♀	3	3	3	1	0	87	84	15	11	15	27	210	456
" C ♂	4	5	4	1	0	139	157	16	13	23	24	303	685
B.													
7570A-1, A-4 tillers 1)		36	4	4	1	56	78	3	20	22	24	128	376
7570B-2 pollen ♂ 2)		3	39	1	1	72	36	7	2	6	4	155	326
7570C 2nd ear main stalk 3)		0	0	0	0	55	59	6	5	2	2	81	

Heading:

Phenotypes of kernels on ears produced by testcrosses of a_2^{m-1} (class II) Bt/ a_2 bt plants in culture 7570. that were Wx +/wx Spm (7570A), Wx Spm/wx + (7570B), and Wx Spm/wx Spm (7570C).

A. Kernels on ears produced by testcross type-2.

B. Kernels on ears produced by testcross type-3 in which the tester plants carried one Spm in its active phase.

1) Patterns in Variegated, BI kernels: 1 Spm = 44 Wx : 5 wx; high dose Spm = 12 Wx : 73 wx

2) " " 1 and 2 Spm = 32 Wx 34 wx; high dose Spm pattern = 40 Wx 2 wx

3) " " 1 Spm = 3 wx, 2 Spm = 29 Wx : 29 wx, 3 Spm = 26 Wx : 27 wx

Table 25

A.

Spm Constitution and location	number of ears	uniformly pigmented BI Wx	uniformly pigmented BI ux	uniformly pigmented bt Wx	uniformly pigmented bt ux	spots of pigment in colorless background BI Wx	spots of pigment in colorless background BI ux	spots of pigment in colorless background bt Wx	spots of pigment in colorless background bt ux	colorless BI Wx	colorless BI ux	colorless bt Wx and ux	Totals	% Recombination
Wx Spm/ ux +	17	141	1419	20	124	1484	121	93	10	132	147	3121	6812	8.5
Wx/ux: 1 Spm (7563A-2)	2	96	84	7	3	80	85	2	2	6	13	324	702	0

B.

Wx Spm/ ux + (7563 A 4 tiller-1)	1	2	32	1	0	64	31	2	2	2	3	108	247	
(" B-1 tiller)	1	5	33	0	1	71	50	2	1	14	4	148	329	
Totals		7	65	1	1	135	81	4	3	16	7	256	576	

Heading: A. Phenotypes of kernels on ears of plants in culture 7563 that were a_2^{m-1} (Class II) BI/a_2 bt in constitution produced by the cross with plants homozygous for a_2, bt, and ux and having no spm.

B. Phenotypes of kernels on two ears produced by cross with plants homozygous for a_2, bt, and ux and having one spm in its active phase.

(Heading - over)

Table 26 — Phenotype of Kernel

A Spm constitution and location	Number of Ears	Uniformly Pigmented BI Wx	Uniformly Pigmented BI wx	Uniformly Pigmented bf Wx	Uniformly Pigmented bf wx	Spots of pigment in colorless background BI Wx	Spots of pigment in colorless background BI wx	Spots of pigment in colorless background bf Wx	Spots of pigment in colorless background bf wx	Colorless BI Wx	Colorless BI wx	Colorless bf Wx and wx	Totals
Wx+/ wx+ Spm	13	696	85	53	5	98	708	12	40	62	75	1643	3477
Wx+/Wx+, 1 Spm	3	258	-	12	-	207	-	17	-	34	-	478	1006
Wx+/wx+, 2 Spm	2	44	28	3	1	113	111	3	7	13	15	306	644
Wx++/wx+ Spm (7546-7, 1 ear in main stalk)	1	41	40	2	6	0	3	0	0	6	3	87	
B Plant number ♀ ♂													
7546-1 7538-3	1	43	4	1	0	39	78	1	1	7	6	190	370
" -2 7538-13	1	32	3	7	1	48	105	4	3	5	6	198	412
" -7 7538-14	1	36	4	2	1	22	49	1	2	4	3	105	229
Totals for B	3	111	11	10	2	109	232	6	6	16	15	493*	1011
C ♀ ♂													
7546-5 7538-2	1	16	5	2	0	51	62	4	6	4	5	175	330
" -9 7538-2	1	33	5	1	0	71	89	6	7	12	13	189	426
" -12 7538-2	1	8	0	0	1	35	40	2	3	3	2	64	158
Totals for C	3	57	10	3	1	157	191	12	16	19	20	428*	914

* A few kernels carrying a_2 wx-1 and a high dose of Spm may be included in this class.

Heading:

A. Phenotypes of kernels on ears produced by plants in culture 7546 in cross with plants homozygous for a_2, bt, and wx, and having no Spm.

B. Phenotypes of kernels on ear of each of three Wx +/wx Spm plants in culture 7546 produced by cross with a plant homozygous for a_2, bt, and wx, and carrying one active Spm.

C. Phenotypes of kernels on ear of each of three Wx +/ wx Spm plants in culture 7546 produced by cross with a plant homozygous for a_2, bt, and wx, and carrying two non-linked, ~~and~~ active Spm elements.

Table 27

Phenotypes of kernels

A.

Plant number	Position of ear	Uniform Pigmented BT Wx	Uniform Pigmented BT wx	Uniform Pigmented bt Wx	Uniform Pigmented bt wx	Pigmented spots in colorless background BT Wx	Pigmented spots in colorless background BT wx	Pigmented spots in colorless background bt Wx	Pigmented spots in colorless background bt wx	Colorless BT Wx	Colorless BT wx	Colorless bt Wx + wx	Totals	% Recombination
7308B-2	1st ear, main stalk	186	32	-	-	23	162	-	-	0	1	-	404	
" B-4	" " "	21	1	-	-	0	15	-	-	0	0	-	37	
" " "	tiller-1	28	2	-	-	2	26	-	-	0	0	-	58	
" " "	tiller-2	13	4	-	-	0	11	-	-	1	0	-	29	
Totals, 7308B-4		62	7	-	-	2	52	-	-	1	0	-	124	
7308B-1	tiller-1	46	10	2	1	6	64	1	2	5	6	63	226	
	tiller-2	29	10	3	1	4	39	2	4	3	6	89	190	
	tiller-3	17	2	2	1	3	18	0	1	0	2	47	93	
Totals, 7308B-1		92	22	7	3	13	121	3	7	8	14	219	509	

B.

Phenotypes of kernels

		Uniform Pigmented BT	Uniform Pigmented bt	Colorless with spots of pigment BT 2 spm pattern	Colorless with spots of pigment BT Hilldale spm pattern	Colorless with spots of pigment bt	Colorless BT	Colorless bt	Totals
7308B-3	1st ear, main stalk	4	5	75	43	8	36	176	347
7308 C-1	" " "	52	6	49	42	10	12	132	303
C "	2nd ear, " "	8	3	24	5	3	6	45	94
" "	tiller-1	40	3	53	36	11	20	143	306
" "	tiller-2	12	2	40	41	6	27	38	216
Totals for C-1		112	14	166	124	30	65	408	919
7308C-2	1st ear, main stalk	0	-	6	68	-	51	-	125
" C-3	" " " "	10	2	149	15	10	15	166	367
" "	2nd " " "	6	0	149	4	3	10	163	335
Totals for C-3		16	2	298	19	13	25	329	702
" C-4	1st ear, main stalk	45	3	59	34	10	28	169	348
" C-5	" " " "	0	-	0	6	-	10	-	16
" C-6	" " " "	8	-	158	158	-	4	-	328
" " "	2nd " " "	5	-	95	114	-	5	-	219
" " "	tiller	2	-	41	59	-	0	-	102
Totals for C-6		15	-	294	331	-	9	-	649

Heading: (over)

Heading:

Phenotypes of kernels on ears of plants in B and C of culture 7308.

A: produced by testcross type-2

B: produced by testcross type-1

Plants B-2, B-4; C-2, C-5, C-6 were homozygous for a_2^{m-1} (class II) and Bt. Plants B-1, B-3, C-1, C-3, and C-4 were a_2^{m-1} (class II) Bt/ a_2 bt in constitution.

Table 28

A- Plant		uniform pigment				colorless, spots of pigment				colorless			
		BT		bt		BT		bt		BT		bt	
number		Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx + wx	Total
7573A-1	1st ear, main stalk	47	30	3	4	40	57	4	2	3	8	162	
7573A-2	2nd ear, main stalk	47	4	1	0	44	73	5	6	11	9	211	411
" A-3	1st ear, " "	49	8	3	2	70	101	2	10	8	5	166	418
" A-4	" " " "	30	4	4	0	49	66	3	2	9	4	156	327
" A-5	" " " "	31	3	1	0	33	66	3	0	3	7	122	269
" A-6	tiller	26	2	5	0	40	44	4	3	5	9	90	228
Totals		183	21	14	2	236	350	17	21	36	34	739	1653
B.													
7573A-2	1st ear, main stalk	46	3	25	1	52	92	38	75	1	1	50	
7573A-3	2nd " " "	37	4	13	0	83	113	38	69	1	3	129	
C													
7573B-1	1st ear, main stalk	27	4	2	1	3	34	0	2	6	0	63	142
" B-3	tiller	42	4	2	1	2	32	0	4	5	2	85	179
" B-4	2nd ear, main stalk	90	5	5	0	3	71	0	4	6	7	151	342
Totals		159	13	9	2	8	137	0	10	17	9	299	663
D.													
7573B-4	1st ear, main stalk	66	7	9	0	8	72	5	50	2	1	43	

Table 29

A.

Plant number	Position of ear		BI Wx	BI ex	bT Wx	bT ex	BI Wx	BI ex	bT Wx	bT ex	BI Wx	BI ex	bT Wx and ex	Total	
7576	1st ear, main stalk		55	14	5	0	6	70	0	3	3	7	129	292	
"	2n " "	"	54	5	3	2	3	68	0	3	4	7	112	261	
Totals			109	19	8	2	9	138	0	6	7	14	241	553	10.39%

B

7576 tiller

Table 30 A

a_2m1 ♀ (class I) × 7308 D-1 ♂
no Spm

Plant number	Position of Ear		no Spm	Spm	Year 1958 Culture no
7305 C-3	tiller		61	57	
" D-1	tiller-3		107	102	7564
7320 A-2	1st ear,	main stalk	109	106	
" B-1	" "	" "	87	85	7601
" B-6	" "	" "	126	105	7605
7321 B-7	" "	" "	31	28	7607
7459 A-1	" "	" "	53	52	7565
7465 A-1	tiller		39	20	
" A-2	1st ear,	" "	25	45	
" A-3	" "	" "	11	9	
7466 A-3	" "	" "	119	107	
" B-3	tiller		109	86	
Totals			877	802	

a_2m1 (class II) ♀ × 7308 D-1 ♂
no Spm

Plant number	Position of ear		no Spm	Spm	1957 culture number
7309 B-4	1st ear,	main stalk	108	123	
7310-1	tiller-2		108	128	
" -3	1st ear,	main stalk	127	122	
7314 A-3	" "	" "	70	71	
7316 A-1	" "	" "	89	52	
" D-2	" "	" "	216	172	
7456 A-1	" "	" "	36	52	756
" A-2	" "	" "	79	60	756
" A-3	" "	" "	88	79	756
" B-1	" "	" "	16	19	
" B-3	" "	" "	94	89	
" E-1	tiller		80	78	
" E-3	2nd ear	" "	9	10	
Totals			1120	1055	

Totals = 1997 no Spm ; 1857 with Spm

Heading:

Number of a_2m1 carrying kernels on ears of no Spm plants that received no Spm (or an inactive Spm) and Spm from the pollen parent 7308 D-1 (A of table) or 7308 D-2 (B of table). Plants were grown in 1958 from the undetermined class of kernels under the culture number given in the last column.

Table 30 B

a_2m1 (class I) no spur ♀ × 7308 D-2 ♂

Plant no. ♀	Ear	no Spur	Spur	Year 1958 Cutter number
7305C-2	tiller	139	120	
" D-2	I	149	146	
" E	tiller	105	123	
7320A-3	I	34	24	
" A-4		139	illegible	7662
7465A-1	tiller	96	89	7571
" B-1	tiller-1	25	31	
7466A-1	tiller	126	103	
" A-2	I	97	104	
" A-3	tiller	83	78	
" B-1	tiller	126	129	
Totals		1119	1063	

7461B-2 I not included: poor classification

a_2m-1 (class II) ♀ no spur × 7308 D-2

Plant no ♀	Ear	no Spur	Spur	%
7308A-1	I	220	195	75
" A-2	I	212	210	
" A-3	I	109	110	
" A-6	I	34	36	
7309B-1	I	143	137	
" B-2	I	58	52	
" B-3	I	131	130	
7310B-1	I	94	96	
" B-2	I	99	81	75
7311-1	I	121	109	
" -2	I	91	87	
7314A-1	I	79	79	
" A-2	I	121	113	
7316A-2	I	89	52	
" D-4	I	36	31	
7456B-1	I	52	57	
" E-3	tiller-2	73	57	
Totals		1762	1632	

Total = 2881 no spur : 2695 spur

Break-down, pale-sph. sectorials, late sph.

1957

7305 E
" H
7306 B - from late sph. for "A₂" state
7316 B " breakdown " " "
" C " " "
7319 C
7455 A, B, D
7456 C
7459 B
7460 B
7461 B
" C
" D
7463 C
" D

1958
7544 B - see
7545 B
" C
7551 B
7554 A - from 7308 A (5) or
7578 A
7582 A - from 7316 - (6) see 7582 B
7565 B - from 7308 D (1) or 1 up
7584 A - " 7305 C (4) t
" B " "
7586 A " 7463 E (5) I
" B
" C
" D
" E
7587 B from 7463 E (5) t-2
" C
7592 A From 7455 B (2)
7593 A " " } important
B
7594 I
7596 A
B
C
7598
7599 A

Use Like 7109 B-1 in parts but A₂ m+/pale-spotted

Tests of a_{2m-1} (A-) from "Breakdown" kernels. 1958

7554 A = A ① ③ ④ ⑤ = Wx + / wx Spm - inactive,
A ② = Wx Wx wx Spm [From heterofertilization?]

7582 A = Wx + / wx Spm - inactive in most of plant.
" B = from pale Wx wx kernels = inactive Spm in most of plant

7590 = From "Breakdown" kernels in class of $a_2 bt_p$ Wx × 7316 D ⑤
no evidence of Spm.

7593 A From "Breakdown" kernels in class of 7455 B ② [illegible] × $a_2 bt_p$ Wx wx [illegible]

7596 A " " " " " 7455 C ⑤ [illegible] × $a_2 bt_p$ wx wx Spm

B " spl "

C " " "

7599 A From "Breakdown" kernels in class of 7293 (65) × 7456 D ⑤

Tests of a_2^{m-1} (spotted) from Breakdown or colorless, few A_2 specks 1958

7544 B = no evidence of Spm in plants

7545 B = inactive Spm

" C = no evidence of inactive Spm

7459A-1 × 7308D

Imp 7565B = From $a_2 \to A_2$ few A_2 specks only. Cross of a_2^{m-1} BI / a_2^{s} bt × 7308D. gave only few var. kernels in tests.

Delayed action Spm from ♀ parent, probably. not from ♂.

No evidence of Spm in

7584 A From pale, irregular colored kernels 7305C(4)$^{t-2}$ × 729336

" B From "Breakdown" kernels, few A_2 specks. gave same results as 7565B.

7586 A From pale kernels of 7463 E(5)^{I} × 7293(17)

" B " Breakdown kernel - no evidence of active Spm in plants.

" C " pale-spk sectorials - Plants sectorial. Ears = no Spm seen

" D " late spk kernels. - var pale plants - no evidence of Spm action

" E = " dotted (small) " - sectorial plants - ears like 7565B

7587 B = From kernels with few specks - 7463 E(5)^{t2} × a_2 bt pr wx no Spm

no evidence of Spm in plant or in kernels on ear

" C = From "Breakdown" kernel = no evidence of Spm in plant.

7603A From pale-spk sectorial. [pale-early state]

7610C " " " "

Very delayed action Spin - Long inactive Cycle

7455 B(2) - see 7592 A (2)(3)(6). Plants = all A_2

Compare with 7591 A + B.

" " 7593 A all Plants = A_2

7593 B " " A_2 except few small sectors in B(5). [illegible]

7455 C(5)II - See 7594. all plants A_2 Compare with 7595 A + B.

7596. " " are A_2

7455 C(2) - See 7597

Tests of changes in spm - in a_2s plants

use - 7538 Tests

7614

7615

7816-7818

7308 D① + D② crosses.

Late transposition

spm from 7109 culture - changes mainly to inactive. Rarely to spm^w.

spm " a_1 m-1 " - changes mainly to spm^w. Rarely to spm - inactive.

Early or late transpositions.

I Illustrations.

1. States of a_2^{m-1} with and without Spm.
2. Mutant types of Spm with different states of a_2^{m-1} or a_1^{m-1}
   Spm^w - stable; Spm^w returning to full activity in some cells.
   use a_2^{m-1} (pale-spotted) + a_2^{m-1} (early).

3. Kernels with a_2^{m-1} (class I) + different patterns of pigment distribution
   With Spm: 1 Spm, 2 Spm, 3 Spm, diffuse mottled.

Sequence 7113A-5 to 7587 a_2^{m} (pale-dotted)

1957			I	II	t-1	t-2	t-3	pales
7113A-5			+ + (some d)		+	0		
1957								
7463 - From selected kernels on ear I of 7113A-5								
A			+ + (sound)	+ + (sound)	+ + (sound)	+ + (sound)	+ + (sound)	
B-1			–		–	–		
2			vd	vd	vd			
C			–	–	vd	vd		
D-1			–		–			
D-2			–					
E-1			+ + +	+ + +	+ + +	+ + +		
2			vd vd	vd vd	+ d (sound)	+ + (sound)		
3			– d		+ +			
4			–	–	d			
5			d	+	+ (sound)	±		
6			d d		+ +			
1958								
7587	From selected kernels on ear I of 7463 E-5							
A-1	no spun		0					
A-2	no spun		0	0				
A-3	no spun		0	0				
A-4	no spun		0	0				
A-5	(" ")							
A-8			–		vd	vd		
A-9			–	–				
A-10			–	vd				
B			–	–	–			
C-1			–					
2			–					
3			–					
D-1			–					
4			–	–				
E-1			–					
2			–	–				
3			vd	vd				

			I	II	C-1	C-2	E-3	pollen
7587	From selected kernels on ear of tiller-2 of 7463E-5							
A-1			+ +		+ +			
2			+					
3			nd	+				
4			+ +					
5			+					
6			+	+				
7			+ + +	+ + +				
8			+					
9			+ +					
10			+	+				
B			−		−	−		
C			−					

7113 A-5 From cross of 6914E-8 × 6908A (3)
(A1/a1s) a2BI/a2BI a2m-1 (pale dotted) BI / a2s BI A2A1

" variegated plant - small streaks of A2

7463 = 7113A-5 I × 7102 (5) a2bt pr y Wx no Spm

7463 A = from A2 BI kernel. Plant = var.

" B = From pale BI kernels

" C = " pale-sph sectorial kernel

" D = " " " sectorial "

" E = " a2 → A2 spotted kernels

7586 From 7463 E (5) I × 7293 (17) a2bt pr y Wx no Spm

A = from pale BI kernels

B = From "Breakdown" kernel BI

C = from pale-sph sectorials BI

D = from late sph kernels BI

E = from a2 → A2, small dots. BI

7587 From 7463 E (5) t-2 × 7321 B (4) a2bt pr y wx no Spm

A = From a2 → A2 spotted pattern BI

B " " few A2 specks BI

C " Breakdown plus few A2 specks.

7314 = 7110 A ③ $a_2^{m-1}(A_2)$ BE fr / a_2^s BE Pr ♀ × a_2 bt pr W × ♂ — = × 7308 D① or D②
no spm

	I	II	t-1	t-2	t-3	pollen
7314 A-1	no spm	no spm				
2	no spm					
3	no spm					
4	no spm					
5	no spm					no spm
" B-1	+	+	+			
B-2						
B-3						

7315 From 7110 A-5 $a_2^{m-1}(A_2)$ BE / a_2^s BE 2 spm ♀ × a_2 bt pr W × no spm ♂

2	(+	−)	+	−	+	−
3	+	−	+	d	+	−)
4	+		+			

7316 From 7110 B-4 II $a_2^{m-1}(A_2)$ BE / a_2^s BE 1 spm × 7273 a_2^{m-1}(pale "late") bt / a_2 BE — = early mutt. spm ♀

A-1	no spm					
2	no spm	no spm				
B	(medium spm)					
C	−					
D-1	no spm	no spm				
2	no spm					
3	−	−	=	−		−
4	no spm					
E-1	+		+			
2	+		+ +	+ + +		
3	+ + +					
4	+ +					
F 1	+ −					
2	+					
G 1	−					
2	+					

— . x7305 D① ⇒ D②

7305 = 7113A-6 a_2 m-1 (pale-spotted BT Pr / a_2 s BtPr
1 spin from a_1 m-1 culture + 1 spin from a_2 m-1 culture

			I	II	t-1	t-2	t-3	pollen
7305A			+ d	+ −	+ +			
" B-1			+ −		+ d			
2			+		+			
3			+ −	+ d	+ +	+ +		
			∅ ∅					∅ ∅
C-1			no spin		no spin			no spin
C-2			no spin		no spin			no spin
C-3			no spin	no spin	no spin			
C-4			vd		− vd	vd		
D-1			no spin		no spin	no spin	no spin	
D-2			no spin		no spin			
✓ E	from pale-sph.	Plant-spun seedlings	no spin		no spin			
F 1			+ + +		+ + +			
2			d	d	+			
G 2			+ +	+ d	+ −			
3				+				
4			+ +					
1			+		+			
5			+ +	+ +				
6			+ d					
H			+ +		+ +	+ +		

Table 3 Tests of 7308C-6 wx Spm/wx Spm +1 Spm a2 m-1 BT/a2 m-1 BT ♀ × a2 bt/a2 bt, Wx/Wx no Spm ♂

		uniformly dark pigmented	colorless with spots of color	colorless with few specks of color	colorless
7308C-6	1st ear main stalk	8	158	157	5
	2nd " " "	5	95	113	6
	ear of tiller	2	41	59	0
	Totals	15	294	329	11

~~7573A-3~~	uniformly dark pigmented BT		Colorless, BT pigmented spots		pigmented specks		Colorless BT		pigmented bt		colorless, bt pigmented spots or specks		colorless bt Wx and wx
	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	Wx	wx	
7573A-5 I	30	4	42	29	7	37	9	4	4	0	3	2	156
" A-6 I	26	2	34	23	6	21	5	9	5	0	4	3	90
Totals	56	6	76	52	13	58	14	13	9	0	7	5	246
7573B-1 I	27	4	3	34	0	0	6	0	2	1	0	2	63
" B-3 I	42	4	2	32	0	0	5	2	2	1	0	4	85
" B-4 II	90	5	3	71	0	0	6	7	5	0	0	4	151
Totals	159	13	8	137	0	0	17	9	9	2	0	10	299

7308C-3 ♀ Spm/Spm. * a2 m-1 (class I) × a2bt no Spm ♂

		Unif. pig.	pattern "2 Spm" ♀	pattern 3-Spm	colorless BT	A2 bt	var bt	colorless bt
7308C-3	ear I	10	149	15				
	" II	6	149	4				
7570C	I	0	92 = 2 Spm	0	21 1)	0	17	100
	I-1	1	1-128 1)	2 = 1 Spm 43 1)		0	2	40
	I-2	5	1 Spm 43 1)	2 Spm 6	19	1	7	70
	pollen	6	211	4	32	~~2~~30	23	223

a2bt/a2bt Spm/Spm ♀ × a2 m-1 (class II) no Spm ♂

7538-6 ♀	19	228	30
" R-2 ♀	28	190	17
" R-4 ♀	2	304	0

1) ... for 1 Spm pattern

Spm | Spm ♀ × a_2^{2n-1} (class II) no Spm ♂

		Unifenz pigmented	1 spin ♂♀ pattern	2 spin ♀ pattern
308C	3 I ♀	10	149	15
"	3 II ♀	6	149	4
538-6	♀	19	228	30
" R-2	♀	28	190	17
" R-4	♀	2	304	0
570C	I ♀	0	109	?
" C	t-1	1	31	?
" C	t-2	6	56	?
" C	♂	3	128	2
		3	83	2
		total 6	211	4