For I, Table 6

		Pale				Var.				Colorless					
♀	♂	Sh₂		nh₂		Sh₂		nh₂		Sh₂	nh₂			Totals	
		♀	♂	♀	♂	♀	♂	♀	♂						
6665 E-1 I	6635-1	46	60			62	42				208			418	
" E-2 I	6632-23	10	15			21	12				66			124	
" E-3 I	6632-2	50	60			56	51				220			437	
" E-3 II	" -23	25	44			39	21				139			268	
" E-4	6635D-1	49	63			70	48		1		201			432	
" E-5	6632-8	36	55			62	36				159			348	
" E-6	6632-11	48	73			51	40				193			405	
" E-7	6637B-5	30	61			65	43				208			407	
" E-8	6632-8	43	56			62	45	1			211			418	
" E-9	6632-2	30	56			48	38				175			347	
6666 C-3 I	" -16	34	62			50	31				211			388	
" " 3 II	" -18	26	66			58	22				187			359	
" C-4	" -11	55	74			66	45				226			466	
" C-5	" -11	23	37		1	40	28				127			256	
" C-6	" -18	29	51		1	68	32			2	214			397	
TOTALS		534	833		2	818	534	1	1	2	2745			5470	
		1367				1352									

Spin number in Progeny of plants having 1, 2, or 3 Spm elements.
From test crosses. Main ear as indication

		1 Spm	2 Spm	3 or more Spm	Totals		
1 Spm parent, Random selection of kernels.		227	14	3	244		
" " , Recombinants.		58	8	3	69		
	Totals	285	22	6	313		
2 Spm parent Random selection		89	28	11	128		
3 Spm parent Random selection		36	31	26	93		
					534		

Correspondence of Spm number in different parts of same plant

	1 Spm	2 Spm	3 or more Spm			
2 parts of plant						
I and II	6	5				
I and t	45	18	5			
I and pollen	13	3				
3 parts of plant						
I, II and t	3	4	1			
I, t-1 and t-2	9	1	1			
I, II, and pollen	1					
I, t, and pollen	8	1				
4 parts						
I, t-1, t-2, pollen	1					
Totals	86	32	7		9	Total 134

Non correspondent

6629A-7 I=1, t [illegible]
6667C-7 [illegible]
6676B-7 I=2, t=1
6684F-1 I=2, t=1
6875B-7 I=2, t=1
6678B-3 I=2, t=1
6876-8 I=1, t=2
6452-3 I=3, t=2
6453-9 I+t=2, t-2=3

non- Recomb.

Plants =

Tested From

		Var.	Pale							
6864		14	1		15	6665 E-10 I	x 6632-26			non-selected
6865		15	0		15					" "
6866		11	0		9					"
6867		20	0		17					" "
6868		11	0		9					selected-direct
6869		9	0		9					" "
6870										
6871										
6872		29	1		29	6668 C-3 x 6872			[Recom for W+]	
6873		12	0		9					Recomb.
6874		20	0		20					(non-selected)
6875		20	3 inactive Spur		20	6685 G-2 x 6641 A-5				non-selected
6876		11	0		11	(long pale) ✓✓				(Recomb ?)
6877		9	1 inactive Spur		10	6668 C-6 x 6638 A-4				Recomb.
6878		8	0		8					Recomb
6879		19	1		16	6684 D-1 I x				selected-direct
6880		10	1		11	6641 B-3 x 6684 D-1			[Heterofert. possible]	
6881		10	0		10					selected-direct
6882		9	1		10	6685 F-3 I x 6641 A-4				Recomb
6883		10	0		6					Recomb
6884		19	1		17	6667 F-11 I x 6638 A-3				selected-direct
6885		24	0		22					selected-direct
6894		19	0		15					selected-direct
6895		5	0		5					non-selected
68[illegible]		11 [illegible]			9 [illegible]					non-selected
excluding 6870 [illegible]		325	6 pale + 4 inactive		302					

1954

non-Recomb. or non-selected From Var. Kernels.

Recomb.

Culture			Pale	Var.		Pale	Var.		
6646	A		0	6					
6647	A + B		0	8					
6649	A + B	1A1	0	9					
6650		1A1	0	4					
6651	B		0	5					
6653		1A1	0	9		0 pale:			
6654		2A1	0	4					
6655	C		0	5					
6656			0	4					
6657			0	8					
6658			0	1					
6662	D		0	10					
6663			0	16					
6664	B		0	10				From 6629A	
6665	E, F		0	13					
6666	C, D, E		0	13					
6667	A to D		0	19					
6668	A		0	10					
6669	B		0	1					
6670	C, D		0	12		1 pale:	182 var.		
6671	C - E		0	19					
6672	C D		0	11					
6673	C D		1	18					
6674	C, D		0	11					
6676	B C		1	19					
6679	C, D		0	9					
6680	C D E		0	19					
6681	B		0	4					
6682	A		0	8					
6683	B		0	9					
6684	D		0	3	Recombination			From 6629B	
6685	D to G		1	8					
6686	C D		1	9					
6687	C		0	6		3 pale:	94 var.		
6688	A		1	9					
6689	B		0	9					
6690			0	1					
6691	B		0	10					
6692	B		0	7					
6693	B		0	6					
6694	A B		0	11					
6695	B, C		0	10					
6696	B		0	9					
6697			0	9					
6698			0	10		0 pale:	124 var		
6703	A to D		0	20					
6704	A + B		0	8					
6705	A B		0	9					
6706	A B	1A1	0	7					
6707	A - B		0	8					

Variegated plants from Pale leaves. Summer 1954

Cultag		Pale	Var							
6640B		3	0							
6659		19	0							
6660		22	0	From leaf + pale plants = 61 plants						
6661		20	0							
6662	A to B	10	0							
6664	A	6	0	From 6629 A leaves.						
6665	A + B D	13	0							
6666	A B	11	0							
6669	C	1	0							
6670	A, B	12	1							
6671	A, B	12	0	1 var: 101 pale						
6672	A, B	7	0							
6673	A C	12	0							
6674	A B	12	0							
6676	A	4	0							
6677		1	0							
6679	A B	10	0							
6680	A	10	0	From 6629 B leaves						
6681	A	5	0							
6683	A	4	1							
6684	A	4	0							
6685	A	8	0	1 var: 72 pale						
6686	A B	10	0							
6687	A B	11	0							
6689	A	10	0							
6691	A	10	0							
6692	A	5	0							
6693	A	5	0	0 var: 31 pale						
6694	C	2	0							
6695	A	4	0							
6696	A	4	0							
6699		8	0							
6700		5	0							
6701		8	0	31 plants from leaves of pale plants						
6702		10	0							
6704	C	10	0							
6707	C	10	0	20 pale						

Totals = From leaves of pale plants = 92 plants, all pale
From leaves of variegated plants = 2 variegated : 224 pale

Spm-w

Spm-motivation

6665E-9 × 6632-2 see 6886

6688B-2 × 6634B-10

6688C(8)t × 6702-(2) 2 up

6662 D(7) (x) see 6871

6662 D(10) to 6662B(4)

" " to " B(5)

" D(10) ×

" D(10) to 6632(35)

" E(16) × 6638A-7 - see [illegible] 6870

6671D(2)t × 6634B(2)

6674D(2) × 6641A(5)

6676B(3) × 6632(8) 1 hermit

" B(3)t × 6638A(2) - 2 pattern Spm-s + Spm-w

" C(5) × 6632(34) 2 hermits 6891

" E(4) × 6638A(2)

6680C-[illegible] × 6632(11)

" C-[illegible] × 6631A(2)

" C(5)t × 6632(4)

" E-(6)t × 6675G 6887

6683A(1)t × 6632(25)

6683B(2)t × 6641A(5) 6888

6684C - see ear count

pale plant - 6685F(2) [illegible] × 6641A(5) 2 up

1Spm	no plants	no ear			Pale	Var		Total	no [illegible]
6876-1Spm	6	9	1 spm		1546	1399		2945	
6876-8	I		1Spm		268	172		440	
" -8	I		2Spm		90	217		307	
6876-1			2 linked Spm		79	116		195	
6876-10			2Spm		64	176		240	
" -11			2Spm		121	328		449	
no Spm 6876-6									

Y Spmly + ~~Same~~ position [illegible] ✓
[illegible] ✓

[illegible] from 6629A Y Spmly +

Gaus.

	I	II	t-1	t-2	t-3	pollen			
6629A-1	✓	✓							
6629A-3	✓								
" A-4	✓								
" A-7	✓		✓						
" A-9	✓		✓						
6662D-1	✓	✓							
" D-8	✓								
" D-10						✓			
" E-3	✓								
" E-4	✓								
" E-9	✓								
" E-19	✓	✓							
6664C-1	✓								
" C-2	✓								
" C-4	✓								
6665E-1	✓		✓						
" E-2	✓		✓	✓					
" E-3	✓		✓						
" E-4	✓		✓						
" E-5	✓		✓						
" E-6	✓								
" E-7	✓								
" E-8	✓		✓						
" E-9	✓								
" G-1	✓		✓	✓					
" G-2	✓								
" G-5	✓								
" G-6			✓						
" G-7	✓		✓						
" G-12	✓								
" G-13	✓								
" G-16	✓								
" G-21	✓								
6666C-1	✓								
" C-2	✓	✓	✓						
" C-3	✓		✓						
" C-4	✓								
" C-5	✓		✓						
" C-6	✓		✓						
6666C-7	✓		✓						
6666E						✓			
" G-2	✓								
" G-4	✓								
" G-5	✓								
" G-6	✓								
" G-9	✓								
" G-10	✓								

		I	II	L-1	L-2	L-3	pollen			
6670	C-1	✓								
"	C-2	✓								
"	C-3	✓								
"	C-4	✓								
"	C-6	✓		✓						
"	C-7	✓		✓						
"	E-1	✓								
"	E-4	✓								
"	E-5	✓								
"	E-6	✓								
6673	C-1			✓						
"	C-2			✓						
"	C-3			✓	✓					
"	C-6			✓						
"	C-9			✓						
"	C-10			✓						
"	C-11			✓						
"	C-12	✓		✓						
"	G-1	✓		✓						
"	G-3	✓								
"	G-4	✓								
"	G-7	✓		✓						
"	G-9	✓		✓						
"	G-11	✓								
"	G-12	✓								
"	G-16	✓								
6674	C-1			✓						
"	C-5	✓								
"	F-2	✓								
"	F-3	✓								
"	F-5	✓		✓						
6676	B-1	✓	✓							
"	B-2	✓		✓						
"	B-3	✓								
"	B-4	✓								
"	B-9	✓								
"	B-10	✓								
"	C-3	✓								
"	C-5	✓								
"	C-6	✓								
"	C-9	✓	✓							
"	D-10	✓								
"	E-4	✓		✓						
"	E-7	✓								
"	E-10	✓								

		I	II	t-1	t-2	2-3	polleu			
⑥ ar										
6862 –	2	✓								
" –	9	✓								
" –	10	✓								
6861 –	1	✓	(see 7263 and two)							
" –	5	✓	" 7262 ✓							
6868 –	8	✓								
" –	9	✓								
" –	10	✓								
6869 –	1	✓								
" –	2	✓								
" –	3	✓								
" –	4	✓								
" –	5									
" –	6									
" –	7									
" –	8									
" –	9									
7262 –	1	✓								
" –	2	✓								
" –	3	✓								
" –	4	✓								
" –	5	✓								
7263 –	1	✓								
" –	2	✓								
" –	3	✓								
" –	4	✓	✓							
" –	5	✓								
" –	6	✓	✓							
" –	7	✓								
" –	8	✓								
⑤ [illegible]		[illegible]								
polleu –										

I ~~HHH~~ ~~HHH~~ ~~HHH~~ ~~HHH~~ ~~HHH~~ ~~HHH~~ ~~HHH~~ ~~HHH~~ ~~HHH~~ ~~HHH~~ ~~HHH~~ II } = 57

I + II ~~HHH~~ = 5

I + I ~~HHH~~ ~~HHH~~ ~~HHH~~ ~~HHH~~ I = 21

I + P

I + II + I

I + I + I IIII = 4

87

6629A - 7
6662 F - 3
6665 G - 16
" G - 21
6665 C - 1
" C - 2
" C - 7
6674 C - 1
" C - 5
6868 - 9

10

(4) = 6662
6862
6869
Pollen = 7262

Spm/Spm

6664

			M		pale	Nor.				
6662D-2		YY	6632-4		37	232				
" D-2	1				3	37				
" D 6	X	YY			4	171				
" D 6t		"	6632-23		0	28				
" D 6t		"	" -26		0	70				
" D 9		YY	" -23		0	30				
" E-11		YY	6638A-3		39	280				
" F-7		YY	" A-2		22	280				
" F-9		YY	" "		24	254				
6664D-3		YY	" " -4		43	435				
6662D-2 X : 6900										

Imitations to colorless - state 5715A

6648 (3) x 6669C

" (4) + 6634B (7)

" (5) + 6632 (35) - see (A, mut / a, mu)

State 5720 mutants - + [illegible]

6667G (6) x 6638A (3) Wx + 1 wx Spm + 1 Spm -

6668C (3) x " (4) Wx + 1 wx Spm + Spm - see 6872

6668C (6) + " (4) Pr + 1 pr Spm See 6877

important for relation between high pale ratio + transposition of Spm

Like 6666C (7) ears and pugling 6895

6671F (2) Wx + 1 wx Spm see 6873 (mutant)

6671F (11) Pr Spm / pr +

6671G (1) " "

sectoral ear 6672E (12) I x 6638A (3)

6680F (4) x 6638A (4) - 6874

6683D (2) I x 6641A (5) sectoral ear

6685F (1) I x 6632 (7) - origin of "modified"

6694B (7) - Sectoral tassel, crosses

1955

Homozygous a.m-1

5719A-1 / 5719A-1

6871
6875
6878
6880
6882
6887
6888
6890
6900

5719A-1 / 5718

6866
6867
6869
6870
6872
6874
6877
6895

5999/5718

6883

5996-4 / 5719A-1

6885

[illegible] - distinction from spin-w type?

Spm/Spm plants in culture 6662

♀	♂		A1	Pale	Var.					
6662D-2	6632-4		2	36	232			1+I-2		
6662D-6	⑧			4	231					
" D-9	6632-23		0	0	30					
" E1	6638A3		0	39	280					
6662D-3	⑨			3	37					

① ③ ② 4 ⑤ 124

Y Spm | Y Spm ; Y Spm | Y+ ; Y Spm / y Spm , Y+ / y Spm . Y Spm / y

What was found was the following:

3 = ✓ Y Spm | Y Spm = D ② D ⑥ D ⑨

1 = ✓ Y Spm | y Spm = E ⑪

3 = ✓ Y Spm | Y + = E ⑤ ⑫ ⑬

7 = Y Spm | y + = E ③ ④ ⑨ ⑭ ⑲ D ① D ⑧

1 = Y | y Spm D ⑩

1 = Y | y ; 2 Spm not linked to Y or y = ⑥

1 = Y Spm | y + plus 1 non-linked Spm = ⑯

1 = Y | y 1 Spm, not linked = D ③

Plant	Spm constitution		Culture no. of Progeny		Spm constitution of progeny (where known, in terms, see also)		Culture no. of Progeny	Table reference
			6665, 6666:					
6629A-1	Y Spm/y+ 35% recombination	20 to 30	6665E-10	maroon	Y/y 2 Spm	Table 26	6864	
			" " -10	albino	Y/y 2 Spm	Table 26	6865	
			66656-16	albino	Y/y 1 Spm	Table 24	6866	
			66656-21	albino intermediate	—	—	6863	
					Y/y, 2 Spm	Table 24	6867	
			6666C-1	ear I	Y/y 1 Spm	Table 26	6868	
			6666C-2	ear I	Y Spm/y+ (?)	Table 26	6869	
			6666C-7	ear II	uncertain	Table 26	6895	Table 43
			6895A-1	ear I	Y Spm/y+ 4.3% recomb.	Table 43	7260	Table 43
			6895B-3	ear I	W+ Spm/w+	Table 44	7261	Table 44
6629A-8	Y Spm Spm/y++ ear I	see page	6676		see text	Table 31		
6629A-2	Y Spm Spm/y++ plus 2 Spm.	see page	6667:		see text	Table 32		
			6667F-1	ear I	Y Spm Spm/y++	Table 32	6884	Table 33
	main ear	see page	6668		see text			
			6668C-6	ear I	Pn+/pn Spm	Table 34	6877	Table 34
			6668C-3	ear I	Tert+/tert Spm + 1 Spm	Table 35	7285	Table 36-40
			7285	ear I	W+ Spm/w+	Table 37	7330	Table 37-41
			"	Tillers	W+/w+; 1 Spm	" "	7331	Table 42
			7285A-2	tillers	W+ Spm/w+	" "	7332	Table 39-41
			7285A-7	tillers	"	"	7333	" "
			7285B-6	ear I	"	"	7334	" "
6704B-3	Y Spm/y+ 18% recombination	see page	6885	Table 45				

							Table	Progeny	
6629A-5 ear I 1Spm | y + plus 1 Spm			6671	(Table 46 and 47) 6671F-2 Wx + | mx Spm			Table 47	6873	Table 47
		tiller ear	6672	(table 46 + 47)					
6629B-2 2Spm		ear I	6680						
[y + | y Spm] see 7262, 7263				6680F-4 Wx + | mx Spm?				6874	
				6680C-2 3 Spm					
					6861				
						7262 7263			
6629B-5 ear I Pr Spm Spm | pr ++			6683						
				6683D-2 tiller		6878			
		ear II	6684						
				6684D-1 tiller		6879			
					pollen	6880 and	6881		
		tiller ear	6685						
				6685F-3 tiller		6882			
				6685F-1 tiller		6889			
				6685G-2		6875			
6703E-10			6876						

Transpositions of Spm - (minus Wx Spm/ wx + from 6872) early transpositions
(" 6877 = intables)

6665 G (13) I (x) = 6862

6665 E (10) I = 6864 — [illegible]

" " " I = 6865

6665 G (16) = 6866 - — weak [illegible]

6666 C (2) I = 6869 YSpm/y + quite stable. [illegible]

" C (1) = 6868 " " " Low transposition rate. [illegible]

6665 G (21) (4) = 6863

" × 6638 A (1) = 6867

6671 F (2) = 6873. Recombinants IVy [illegible]

Wx + [illegible]

6680 F (4) = 6874 (inactivations infer) Recombinants [illegible]

PrSpm/pr+

6685 G (2) = 6875 inactivation High rate [PrSpm/pr+] [illegible]

6703 E (10) = 6876

6668 C (6) = 6877. inactivation - Recombinants

6683 D (2) I = 6878 High rate of transposition Recombinants

6684 D (1) I (x) = 6879 High rate of transposition

6684 D (1) pollen = 6880 Low " " " in selected kernels, non-recombinants

" " = 6881 med " " " " " " non- "

6685 F (3) I = 6882 High rate of transposition Recombinants.

6685 F (1) I = 6889.

103 pa[illegible]

6707 A (5) I = 6883 From 5999

✓ 6667 F (11) = 6884 (reported in tables) non-recombinants

6704 B (4) = 6885 Low rate of transposition non-recombinants
Y Spm/y+
18% recombination

From 6080C-3 [illegible]

6703 E (5) = 6894
3 Spm

✓ 6666C-(7) = 6895 High rate of transposition in 6666C (7) I [illegible]

~~7260~~

✓ 6895 A (2) = 7260 Low rate of transposition in 6895 A (2) I [illegible]
Y Spm/y+ non-recombinants
4.5% "Recomb."

✓ 6895 B (3) = 7261 High rate of transposition
W+ Spm/wy+ non-recombinants.

Discussion - continued order: all from same Spm - in 6629B-1 = 35% recomb

I

✓7260 plants - behavior of Spm - 4% Recomb

✓7261 " - " " Spm

6885 - From Y Spm/ y+ of 6704B-4. 18.90 "recombination"

6864 + 6865 = From 6665E 10 I + I

6866 = From 6665G (16)

6863 = " 6665G (21)

6868 = From 6666C (1) - see Table 26 for changed Recomb rate 45% Recomb.

6869 = " 6666C (2) I " " "

II

6671F (2) - recombinant

III. progeny of 6629B - 5

~~IV. High rates of early transposition - 1954 custom - 6694 - pollentate~~

6629A (2) · main ear = 6668

From main ear. Only progeny from $a_1 sh_2 y$ kernels examined

9 plants = 7 with Spm, 2 with no Spm.

1 Spm = C (1) no linkage with ux ; no test for Pr linkage

C (2) " " " " ; no linkage with pr

discussed, see Table 34 — C (6) = Pr + | pr Spm give data [6877]

2 non-linked Spm = C (9) = Pr + | pr Spm plus 1 Spm not linked to ux

C (3) Wx + | ux Spm + 1 Spm ; no test of Pr linkage [6872]

C (4) no linkage with pr or ux

C (8) " " " " " "

Discussion Finished

6629A (2) Tiller ear = 6667. - Discussed, see Table 32 [illegible]

only plants derived from colorless, sb2 classes examined.

From Y class = 1 plant, Spm present but large sector in white Y chr lost from cells.

10 other plants - all had Spm:

Plants: 6667

1 1 Spm = Y Spm / y+ = F (8)

(54 pale Y : 119 pale y : 127 var Y : 50 var. y)

1 2 non-linked Spm, neither in chr 6 = F (9)

1 2 Spm, Both in Y chromosome = F (11) give data

2 2 Spm, 1 in Y chr, other non-linked = F (1), G (11) = Yy

2 3 Spm, 2 in " " " " " = F (2) F (5)

3 3 or more, at [illegible] positions not steady determined = F (3) (6) (10)

~~but 1 probably in Y chr~~

Data given in Table 32 of Spm paper.

6667 G from y $a_1 sh_2$ kernels = 10 plants

mentioned in text see page 127

2 = no Spm

3 = 1 Spm

2 = 2 non-linked Spm / G ⑥ = 35 pale Wx : 8 pale wx
47 var Wx : 80 var. wx

2 = 2 linked Spm

1 = 3 non-linked Spm (1 linked to wx : 21 pale Wx : 2 pale wx : 97 var Wx : 117 " wx)

In the 3 plants that were Pr pr, no linkage of Spm with Pr.

outline

1. Spm/Spm - 1 pale kernels on ear

2. Progeny of 6629A-8 (YSpmSpm/y++)

19 Y/y plants from variegated kerns - pg 125 Table 31

11 Y/y " from $a_1 sh_2$ Y kernels "

13 y/y " " " " y kernels "

3. Progeny of 6629A-2 (YSpmSpm/y++ plus 2 other Spm) - Tiller ear = 6667

10 Y/y $a_1 sh_2$ plants - pg 127 Table 32 - 1 plant = 6667F-11

8 y/y " " " - pg 127

4. Progeny of 6667F-11 (YSpmSpm/y++) = 6884

20 Y/y variegated kerns - pg 128 Table 33.

5. Progeny of 6629A-2 (YSpmSpm/y++ plus 2 other Spm) main ear = 6668

9 y/y = page 129, Table 34. 6668C-6; 6668C-3

6. Progeny of 6668C-6 (Pr+/pr Spm) = 6877

10 variegated Pr kernels - Table 34

7. Progeny of 6668C-3 (W++/wx Spm plus 1 Spm, wx linked) = 6872

30 variegated Pr kernels = page 130 - 131 Table 35. 6872A-12

8. Progeny of 6872A-12 (WxSpm/W++) = 7285

13 variegated Wx kernels = page 132, Table 36, 37, 38; 7285A-1 2nd ear = 7330
" 1 tiller = 7331
" A-2 2nd " = 7332
" A-7 tiller ear = 7333
" B-6 1st ear = 7334.

7285A-1, 2, 7, B-6 = all Wx+/ux Spm

9. Progeny of 7330, 7332, 7333, 7334 - page 133-134. Table 39, 40, 41

10 Progeny of 7285A-1 letter = 7331. page 135. Table 42
(Wx+/ux; 1Spm, non-linear)

11. Progeny of 6666C-7 = 6895, page 136-139. 6895A-1 = 7260
(1Spm, position not known) 6895B-3 = 7261

(YSm/y+)
12. Progeny of 6895A-1 = 7260. page 139-140 Table 43

Wx+/ux ~~Spm~~
13. Progeny of 6895B-3 = 7261. page 143-145 Table 44.

14. Progeny of 6704B-4 (YSm/y+) = 6888 pg 149 Table 45
(YSm/y+ plus 1Spm, not linear to 1)

15 Progeny of 6629A-5 = 6671, 6672. pg 152, Table 46

6671F-2 = 6873

16. Progeny of 6671F-2 (Wx+/ux Spm) page 153, Table 47

Spin locations in Y chromosome in progeny of plant 6629A-8: culture 6676.

No. of Plants	No. of Ears	Ratio	Phenotypes of 9.7th carrying kernels: Pale Y	Pale y	Variegated Y	Variegated y		Totals		[illegible]
I Y Spm / y +										
14	18	1:1	655	1508	1330	647		4140		[illegible]
			[illegible]		[illegible]					
II Y Spm / Spm / y + +										
3	4	1:2	35	296	411	169		911		[illegible]
			[illegible]		[illegible]					
III Y Spm / Spm / y + +										
13	14	1:2 +	224	475	864	690		2253		[illegible]
			[illegible]		1554					
6667 F-1 (6629A-[illegible])		1:1 +	6	102	121	39		268		[illegible]
			[illegible]		[illegible]					
Progeny from 9.7A, Y kernels 6884:										
I Y Spm / y +										
3	3	1:1	126	420	348	106		1000		[illegible]
			[illegible]		[illegible]					
II Y Spm / Spm / y + +										
12	12	1:2	138	868	1330	616		2952		1468 : 1484
			[illegible]		1946					
III Y Spm / y + plus Spm										
2	2	1:3	55	137	260	230		682		[illegible]
			[illegible]		[illegible]					

new positions + actions of Spm

6629A-1 YSpm | y + 35% recombination

gave YSpm | y + 5% recombination - 6895

PrSpm | pr + 35% " - 6895

PrSpm-w | pr + 6886

WxSpm | wx + 33% " 6895 B (3)

YSpm | y + 45% " 6866

6629A-2

PrSpm | pr + 12% recombination

6629A-4

Pr Spm-w | pr +
Spm-w - linkage not found.

6629B (5) = PrSpm Spm | pr + + gave - 35% PrSpm | pr +
21% PrSpm | pr +

Continue -

1) Plant 6666C-7. 2 ears both pr. Table 26 - Discussion -

1. Ratio of kernel type: 70 pale : 27 var. no obs link with Y or Wx. ☐ ear.

2) Plants grown from them summer 1955 = 6895 A = Y Wx kern; B = y Wx kern.

6895 A-1 Y Spm / y + plus 1 Spm

B-2 Y Spm / y + very close linkage of Spm with Y - culture 7260 stable position

B-1 1 Spm - not linked to Pr or Wx

B-2 Pr Spm / pr + 34% recomb

B-3 Wx Spm / wx + = culture 7261 - unstable position

3) no - 6873 - From 667F(2) Wx+/ sex Spm - Recombinants = none in obs. 9

Plant 6666E(10) I+Z - culture 6864, 6865

Plant 6665G(21) - " 6867 later

4)

6683-6685 Culture

Table 31

Spm locations in Y chromosome in progeny of plant 6629A-8: culture 6676

Spm Constitution of plants	Approximate Ratio Pale : Var.	No. of Plants	No. of Ears	Phenotypes of 9th Carry Kernels: Pale Y	Pale y	Variegated Y	Variegated y	Total	Y : y
in culture 6676									
1 Y Spm / y +	1 : 1	14	18	655	1508	1330	647	4140	1985 : 2155
3 Y Spm Spm / y + +	1 : 2	3	4	35	296	411	169	911	446 : 465
2 Y Spm Spm / y + + dead	1 : 2	13	14	224	475	864	690	2253	1088 : 1165
Parent ear: 6629A-8 main ear Y Spm Spm / y ++	1 : 2	1	1	19	56	66	53	194	[illegible] : 109
4) odd types									
6676B-7 1st ear				46	59	88	71	264	
" 7 2nd "				37	62	49	39	187	
6676C-4				48	147	181	84	460	
5) yy plants 1 Spm		3		–	568	–	552	1120	
yy " 2 Spm		1		–	35		93	128	

Explain [illegible]

✓

1) meaning of reduced ratio – [illegible] 6[illegible] ear – [illegible]

2) Y Spm / y + [illegible] y + in other plants [illegible]

3) one Spm close to Y in 3 plants 2 above

4) Both Spm [illegible] from Y in plants in 3.

Revised

5) Line 1 recombination = 31.4

Part I

Table 2

1. Spm. number and location in plant 6667F-11 derived from tiller ear of plant 6629A-2. Part II. Spm number and location in progeny derived from variegated Y kernels on ear of plant 6667F-11.

Part I

1 Plant in culture 6667 from tiller ear of 6629A-2:										
					Phenotypes of a.m. kernels on Tst-cross ears					
Constitution	Approx. Ratio. pale: variegated	No. Plants	number of ears.	Pale Y	Pale y	Variegated Y	Variegated y	Total	Y : y
Y Spm Spm / y + +									
1) 6667F-11	1:1+	1	1	6	102	121	39	268	127 : 141
Part II Progeny of var. Y kernels in part I. (culture 6884)									
2) Y Spm / y +	1:1	3	3	126	420	348	106	1000	474 : 526
3) Y Spm Spm / y + +	1:2	12	12	138	868	1330	616	2952	1468 : 1484
4) Y Spm / y + plus 1 non-linked Spm	1:3	2	2	55	137	260	230	682	315 : 367

Explain in text

1) 23% recomb based on var cross

See [illegible]