Seeds were sown in white sand and seedlings regularly irrigated with Hoagland's solution fortified with micronutrients. Of the several methods tried to supply sucrose solutions to albino plants, feeding 10% solution through cut-ends of leaves was found most satisfactory. Inoculations were made by the leaf-rubbing method with plant sap extracted from SMV-infected green plants on the first leaf of 8-10 days old seedlings.

Symptoms appeared on green seedlings 4-5 days after inoculation. No visible signs of infection, however, were evident on albino seedlings supplied with or without sucrose. However, SMV was recovered from albino seedlings when the inoculated and non-inoculated leaves of these plants were tested for the presence of virus by back-inoculations to susceptible plants, indicating thereby, transmission and movement of the virus in albino plants. The virus was not recovered from the roots of green and albino plants indicating possibly the presence of a virus-inactivating system in the roots. The virus recovered from albinos appeared similar to the one originally used to infect these plants and apparently SMV was not changed on passage through albino hosts.

Studies are in progress to determine to what extent SMV multiplies in albinos and with which particulate cell component (chloroplasts, nuclei, ribosomes, etc.) the virus is most closely associated.

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1. Chromosome 9 mapping.

New 2-point data, combined with earlier data for the same intervals, are presented in Table 1. New 3-point data are presented in Table 2.

The order Wx-V-Gl_{15} is firmly established; new orders Wx-V-Ms_2 and Wx-Ar-Ms_2 are strongly indicated by recovery of one wx v ms crossover strand from

+ + ms/wx v + selfed, and similar strands for Ar. Unquestioned orders are Wx-D3-Pg12-Ms2-Gl15-Bk2-Wc-Bf-Bm4 and Wx-D3-Ar-V-Gl15. If Ms_2 is to the right of V and Ar, then Ar, V, and Pg12 are consecutive "non-alleles" and will require special tests for placement. Accepting all presumed orders, the Wx-Bk_2 interval would be as follows:

$$Wx - 3 - D_3 - 2? - (Ar, Pg_{12}) - 1 - V - 1? - Ms_2 - 2 - Gl_{15} - 10? - Bk_2$$

Data for V8587 indicate it to be to the right of wx. It is a yellow virescent, from E. G. Anderson, non-allelic to ar and v1 and phenotypically unlike pg12. Data for Wh8-9b, a dominant white endosperm character with dosage effects, also from Anderson, indicate placement in the distal part of 9L. This is a clear-cut character in strong yellow stocks when segregating in the female, it is unlike Wc, causing uniform dilution rather than white cap.

The correct position for bk_2 is distal to TB-9a (9L.5); previous tests (Newsletter 38:110 note) were inadequate. Four hypoploids from bk_2 bm_4 x +/TB-9a were bk bm.

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Table 1
Recombination data for 2-point intervals in Chromosome 9

XY	Phase	XY	Xy	xY	xy	Total	Recombination Number	Percent
Bf V8587	RS	88	55	46	10	199	-	35.4±6.1
Bf Wh8-9b	CB	236	31	24	204	495	55	11.1±1.4
Bk_2 V	RB	16	139	95	15	265	31	11.7±2.0
D_3 Gl_{15}	CB	348	14	15	306	683	29	4
	RB	0	99	65	1	165	1	1
						848	30	3.5±0.6
D_3 V	RB	7	142	143	2	294	9	3
	CB	118	3	6	111	238	9	4
						532	18	3.4±0.8
Gl_{15} Ms2	RB	5	339	335	5	684	10	1.5±0.5
Gl_{15} Pg12	RB	1	79	70	2	152	3	2
	CB	509	21	22	566	1118	43	4
						1270	46	3.6±0.5
Gl_{15} V	RB	0	20	16	1	37	1	3
	CB	120	4	2	157	283	6	2
						320	7	2.2±0.8
Sh V8587	RS	121	37	31	2	191	-	29±7
V8587 Wx	RS	107	39	45	0	191	-	<17