males and females tested became sterile when they carried cytoplasm of Cy/Pm stock which is considered to carry no delta b. The number of progeny was smaller when flies of this line were raised at 25° C than raised at 28° C at which temperature the multiplication of delta is accelerated. The progeny number was appreciably reduced when the flies were raised at 18° C at which temperature the multiplication of delta is suppressed. This line could not be maintained at that temperature, since both males and females became sterile (Table 1).

Table 1. The number of progeny (average) recovered from Cy/ID^b-45 flies which were raised for successive generations at 18° C

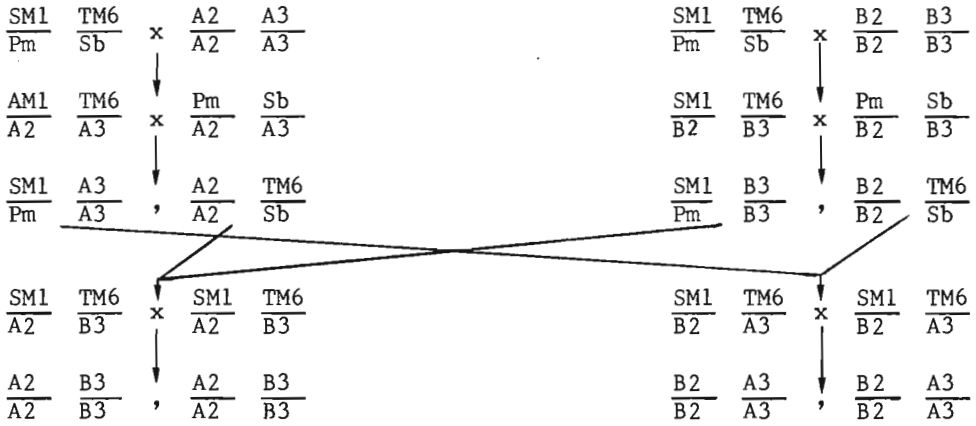
Subline	Raising temperature for progeny (C)	Generations raised at 18° C			
		1	2	3	4
0-9	18°	0	-	-	-
	25°	0	-	-	-
y-9	18°	5.9	15.0	3.4	0
	25°	33.5	0	-	-

Thus, the conclusion drawn may be that the presence of an appreciable amount of delta b is necessary for the gametogenesis of the Cy/ID^b-45 flies.

Reference: Minamori, S., Fujioka, N., Ito, K., and Ikebuchi, M. 1970. Evolution 24: 735-744.

Moree, Ray. Washington State University, Pullman, Washington. A method for the construction chromosomal interchange lines.

The following scheme has been found useful for the construction of chromosomal interchange lines used in heterozygosity studies, where only the 2nd and 3rd chromosomes are interchanged.



A and B designate different wild type stocks; 2 and 3 designate chromosomes 2 and 3. All other chromosomes are those described in Lindsley and Grell (Carnegie Institution of Washington Publication No. 677, 1968) except that TM6, obtained from E.B. Lewis, has a new marker, Ubx^{P15}. Males used in the fourth cross can of course carry Pm instead of SM1 and Sb instead of SM1 and Sb instead of TM6, which sometimes makes this cross easier to set up. The X chromosomes consist of material from the double balancer line, from line A, and from line B in the approximate ratio of 4:1:1, respectively. If lines A and B are made isogenic prior to making the interchanges, then maximum heterozygosity contrasts are possible. (Aided by funds from the State of Washington Initiative Measure No. 171 for the Support of Biological and Medical Research.)