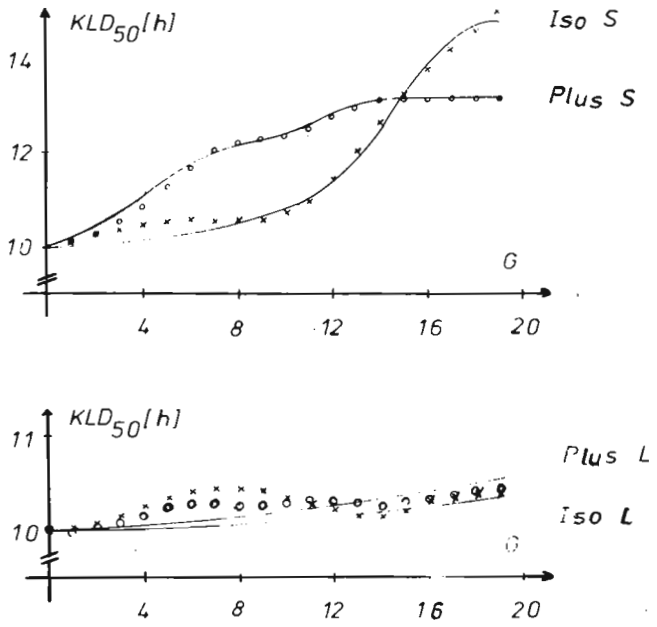

Fig. 2. Circles (o) and crosses (x) indicate the corrected average survival rates of high (uppermost) and low (bottom) selected tines after smoothing. According to the model of Lush the selection curves are the best fit to the experimental data.

can support Robertson's assumption about the importance of recombination or linkage, "that the effects of linkage are much less than we (I) had expected and less than might be assumed for discussions of linkage in literature".

References: Crow, J.F. and M. Kimura 1970, Harper and Row, New Nork; Köhler, W. 1973, Dissertation der Freien Universität Berlin; Robertson, A. 1970, Biomathematics 1:246-288.

Lamb, M.J. and L.J. Lilly. Birkbeck College, University of London, and Middlesex Hospital Medical School, London, England. No detectable increase in sex-linked recessive lethal frequency after feeding male D. melanogaster with the fungicide Benlate.

Benomyl (trade name "Benlate") is a widely used systemic fungicide. Hastie (1970) has reported benomyl-induced instability in Aspergillus nidulans diploids and Boyle (1973) has found cytogenetic effects in Allium cepa and Secale cereale; Dassenoy and Meyer (1973) showed that benomyl induced forward mutations in Fusarium oxysporum. In view of this evidence that benomyl may cause genetic damage, we decided to investigate possible mutagenic effects in D. melanogaster and report here the results of an experiment in which the M-5 technique was used to test for the induction of sex-linked recessive lethals.

Number of chromosomes tested and lethals found after feeding Benlate.

Brood	Fed Benlate		Fed DMSO	
	tests	lethals	tests	lethals
I	340	0	340	0
II	340	1	339	0
III	335	0	339	0
IV	310	0	338	0
V	300	0	320	0
VI	270	0	317	0
Total	1895	1	1993	0

A freshly prepared solution of 0.1% Benlate in 0.5% DMSO was fed to starved 3-day-old Or-R males; each male took approximately 0.14 mg of solution. Control males were fed with 0.5% DMSO. Each treated male was mated with 2 M-5 females in each of six 3-day broods. Approximately 10 chromosomes from each male in each brood were tested for the presence of sex-linked recessive lethals. The results obtained are given in the table. The data provide no evidence of a mutagenic effect of Benlate in Drosophila. It should be stressed, however, that the data are small, only one concentration has been used, only one type of mutation has been investigated, and tests of the mutagenicity of BCM, the breakdown product of benomyl which is formed in aqueous solution, have not yet been made. Further experiments to investigate possible mutagenic effects of benomyl and BCM are in progress.

References: Boyle, W.S. 1973, J. Heredity 64:49-50; Dassenoy, B. and J.A. Meyer 1973, Mutation Res. 21:119-120; Hastie, A.C. 1970, Nature 226:771.