The last program searches the raw data file and summarizes the data of a specific subgroup (control or test) of a given replicate (run). The program requests: name of the file to be searched, replicate (run) number, and group designation code of males exposed to the control or test substance. The number of lethals and nonlethals for each brood is printed out as well as the total number of lethals, nonlethals and total records of males assayed for a particular group of replicates (Figure 4). This program summarizes the raw data in each brood from either a control or test compound so that statistical analysis may be performed with ease.

All three of these programs and their subroutines can be modified to fit a particular laboratory protocol. Copies of these programs and subroutines may be obtained from the senior author.

Food and Drug Administration. Good Laboratory Practices regulations. Federal Register 43(163): 377336-37403, 1978.

This materials has been reviewed by Letterman Army Institute of Research and there is no objection to its presentation and/or publication. The opinions or assertions contained herein are the private views of the author(s) and are not to be construed as official or reflecting the views of the Department of the Army or the Department of Defense.

Remington, M. & S.K. Hotchkiss. Clarkson College, Potsdam, New York. An alternative method of feeding a chemical to adult Drosophila.

We have developed a method of feeding a chemical to adult Drosophila in a paste of cellulose rather than in sucrose solution on tissue paper. Since the cellulose paste method solved a particular technical problem for us, it may be useful to others as well. We found the frequency of X-linked recessive lethals produced in sperm of males fed on N,N-diethylnitros amine (DEN) in cellulose paste was the same as when the mutagen was fed on tissue paper.

The cellulose we used was Avicell, a powder obtained from the FMC Corporation. Before preparing a paste, we dried Avicell in 37°C incubator overnight and ground it to a fine powder with a mortar and pestle. Each treatment vial received 0.7g of the Avicell powder and 0.5 ml of DEN in 1% sucrose solution. Since the cellulose powder absorbs water readily, we stoppered the vials, allowed them to sit at room temperature for 24 hours, then added more DEN solution to give a consistency similar to that of instant fly food. The flies could then be added to the vials and allowed to feed in the usual manner.

TEACHING NOTES

Erickson, J. Western Washington University, Bellingham, Washington, USA.
A temperature-sensitive yellow eye color.

I've found that the yellow eye color trait which I reported previously (DIS 51:22 1974) shows an interesting change with temperature.

The trait, w^{se-y}, originated spontaneously in my sepia stock, and I use it in this way, that is, w^{se-y}; se. The eyes are a clear lemon-yellow color at 25°. At 18°, the eye color of the flies of this stock is indistinguishable from w.

I have found that sepia-yellow works well to show the effect of temperature on phenotype. Students simply make up cultures from stock and incubate them at the two temperatures, or at several temperatures. One may also use the trait, of course, for temperature-shift experiments, so that students may observe what stage of development is sensitive to temperature, in the development of pigment in this case.

I shall be pleased to send the stock.