

Sharma, R.P. Indian Agricultural Research Institute, New Delhi. A new feeding chamber for mutagenizing *Drosophila* flies.

we noticed that many times treatments of long duration lead to excessive killing of the flies due to drying off of the filter paper. Likewise, flies get drowned if filter paper discs have excessive moisture. If the strain to be mutagenized happens to be hyperactive, when flies have a tendency to fall and hit the base of the container, recovery of surviving males after

A simple and effective method of feeding chemical mutagen to *Drosophila* flies was proposed by Lewis and Bacher (DIS 43:192, 1968). This method has since been employed successfully by many workers. While making use of this method, treatment is very low. Also if sequential treatments with more than one mutagen is desired, this method of treatment is not very convenient.

We have designed and successfully employed a simple apparatus for mutagenization of *Drosophila* by feeding (Figure 1). It consists of (1) a 150 ml round bottomed flask with a neck opening (A). It is fitted, on one side, with a female part of ground glass joint (B) and at the bottom with glass tube of one cm length and 1.5 cm diameter. (2) a 9 cm long and 1.5 cm diameter glass test tube, of which about 3 cm length is bent at right angle and ground to fit into the opening (B) on the flask, (3) a circular filter paper wick of desired length with one end flattened and closed.

Mutagen solution of desired strength is filled in the side tube. A filter paper wick of appropriate dimensions is then inserted into the side tube in such a way that its circular end remains immersed in the solution while the flattened end is inserted into the flask through the opening (B). The length of the wick in the flask is so adjusted that it provides maximum area for the flies to feed on but in no case should touch the flask surface. Side tube is then firmly secured with the help of rubber bands hooked on to the flask. Flies to be mutagenized are released into the flask through the opening (A). Treatment can be terminated by carefully removing the side arm along with

the filter paper wick. Mutagenized flies can be etherized either in the chamber itself or removed directly into etherizer.

This apparatus has also been used by us for aging the flies. Flies are released into the flask. Side tube, filled up to the brim with standard *Drosophila* medium, is attached to the flask. At fixed intervals, fresh medium can be supplied by replacing old tube with new one without agitating the flies. Dead flies fall to the bottom and can be easily collected through opening (C).

