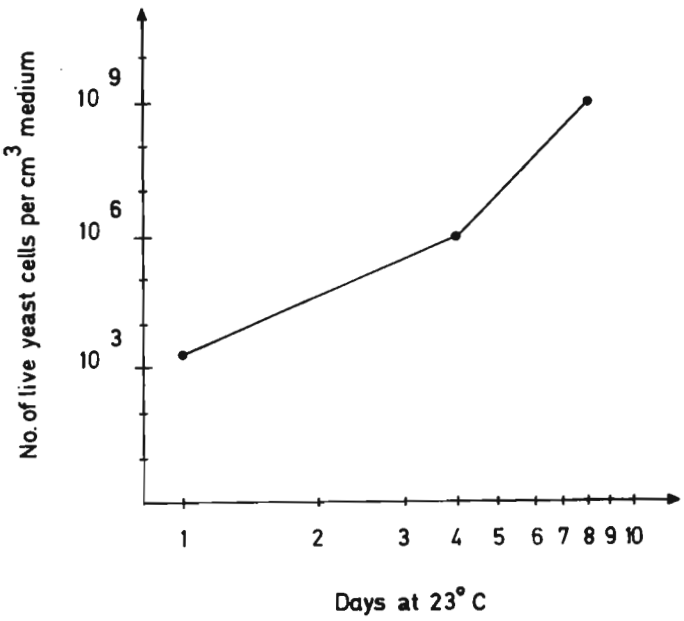

Figure 1. Growth of baker's yeast in the new medium in the presence of D.melanogaster. 25 pairs of flies aged 3-5 days were allowed to lay eggs for 24 hr before day 1. The adults were removed and their progeny cultivated for 8 days. Yeast cells were counted immediately after the removal of adults (day 1), with second instar larvae growing in the medium (day 4), and after all larvae having left the medium for pupation (day 8). From: Köhne, A., A method for determining yeast growth in the medium of D.melanogaster (examination paper, Aachen, 1982, unpubld.).

Acknowledgements: We want to thank M. Dohms for her careful technical assistance and would like to express our appreciation to A.Köhne for her examination-paper utilized in this study.

References: Begon,M. 1974, DIS 51:106; Hunt,V. 1970, DIS 45:179; Pearl, R. et al. 1926, Am.Nat. 60:357-366; Spencer,W.P. 1950, Collection and laboratory culture, IN: Demerec,M. (ed) Biology of Drosophila, Wiley, New York.

Band, H.T. Michigan State University, East Lansing, Michigan USNA. A high protein medium using soybean protein flour.

The removal of Kellog's Concentrate from the market has created problems for Drosophila workers doing research with species requiring a high protein medium. Two such media used this ingredient (Wheeler & Clayton 1965; Band 1981). In our laboratory we used a high protein diet preparation for a year in place of Kellogg's Concentrate, but this and similar products have been withdrawn from the market. Kellogg's NutriGrain Wheat did not adequately maintain fertility in Chymomyza amoena.

We have found soybean flour to be an acceptable substitute for Kellogg's Concentrate and the high protein diet preparations. The product we use is called Vibrant Health Protein Powder from Michigan Vitamin, Ferndale, MI 48220. We have also continued to use Kellogg's NutriGrain Wheat in our medium since it lists vitamins not specifically mentioned in other ingredients. The following recipe is our current high protein medium:

15 gm Gerber's Hi-Pro	500 ml Spartan applesauce
15 gm Kretschmer's Wheat Germ	650 ml distilled water
5 gm Kellogg's NutriGrain Wheat	45 gm Quick Cream of Wheat
5 gm soybean protein flour	3 ml proprionic acid
7 gm Bacto-agar	9 ml 95% ethyl alcohol

To Prepare: Blend the first 4 ingredients in a Waring Blender for several minutes. Add the applesauce and blend 5 min more. Boil 450 ml of water in a large vessel, add agar and stir to dissolve. Add the applesauce mixture; rinse the blender with 100 ml of water and add to the food mixture. Add the remaining 100 ml of water to the cream of wheat and stir it into the food mixture as it begins to boil. Reduce heat and stir until thickened, usually about

5 min. Remove from heat, continue to stir to cool. Add the propionic acid and ethyl alcohol. Pour into food cups or vials. Store in a refrigerator after the food has cooled.

References: Band,H.T. 1981, DIS 56:171; Wheeler,M.R. & F.E.Clayton 1965, DIS 50:98.

Barr,C. and L.Søndergaard. University of Copenhagen, Denmark. An efficient safety etherizer without health risk.

Ether vapour is the most widely used agent for the immobilization of Drosophila. Being an organic solvent, ether has a potential health risk. Exposure to even low concentrations of ether vapour may give headaches, irritation to eyes and nose as well as dizziness. Long-term exposure may lead to permanent brain damage.

In our lab alternatives to ether have been tried (CO_2, triethylamin, and dichlormethan). However, they all show undesired side effects (too easy to overexposure, too short immobilization time, toxicity, etc.). Due to the increased attention of the health authorities to laboratory safety and to prevent ether pollution of the fly room, a closed etherizer which is permanently connected to a ventilation system was constructed. After installation of this etherizer with forced ventilation, it has not been possible to detect ether vapour in the fly lab, and all inconveniences of ether in the laboratory have been removed.

The etherizer consists of a vented ether container and an air lock, all made from aluminum (i.e., no light and hence no peroxide formation). Flies are introduced into the etherizer via the air lock by a special perspex cartridge which matches the vials used in the lab so that the flies are easily transferred from the vial to the cartridge. Due to the air lock ether will not escape from the apparatus not even when the flies are introduced into the etherizer. Before the flies are removed from the etherizer, they are effectively vented to remove ether vapour adherent to the flies. A sealed compartment houses an adjustable electronic timer/alarm system. The timer is adjustable from 1 to 20 sec. and starts automatically when the flies are introduced into the etherizer. At the end of the preset exposure time an acustic and optic alarm is turned on. The flies are vented while in the car-

FIGURE 1. A SAFETY DROSOPHILA ETHERIZER.