film of parlodion. Another coated grid is put on top of this, the grids placed between two slides and the glands crushed by thumb pressure. After the squashing, the two grids are separated with a needle and permitted to dry in air for a few minutes. The tissue is then ready for microscopy and remains in excellent condition for months. The grid-smear method is time-saving, permits microscopy of unstained tissues, and eliminates the necessity of subjecting the material to various chemical and physical agents, which might cause distortion in addition to the original fixation.

Herskowitz, Irwin H. and Burdette, Walter J. Preparation of permanent aceto-orcein smears. Permanent aceto-orcein smears of Drosophila salivary-gland chromosomes may be prepared routinely by means of the following technique. Salivary glands are removed from larvae during the third instar after they have been placed in 60% acetic acid. After 10 minutes in this solution the glands are crushed in the usual manner between a slide and a coverslip previously covered lightly with albumen. The coverslip is floated off with the stain, consisting of 2% orcein in 60% acetic acid. Most of the tissue adheres to the coverslip, and contact with the stain is necessary for only a few seconds. The coverslip is then mounted on a clean slide bearing a small drop of light Karo corn syrup. Excess Karo is removed by pressure and the preparation permitted to harden. By covering the margins of the coverslip with Clarite or a similar mounting medium, such preparations are made waterproof.

There are several advantages of this method besides simplicity. The acetic acid induces sharp definition of the bands and, since it is used alone, permits excellent chromosome spreads. The Karo washes away excess stain ans leaves the background of the chromosomes clean. Moreover, with simple modifications, this method permits one to retain ordinary preparations for an extended period. Salivary chromosomes are particularly well seen using a 1.25-mm dark M phase objective.

Mittler, Sidney Medium for rearing yeasts that do not require amino acids or vitamins. In attempt to control the nutrition of D. melanogaster, yeasts were selected that could grow on a vitamin-amino acid-free medium. The following medium was employed:

Agar	15 gm	NaCl	0.5 gm
$C_6H_{12}O_6$	30 gm	$MnSO_4$	0.5 gm
KH_2PO_4	1 gm	$MgSO_4$	0.5 gm
$NaKC_4H_4O_6$	8 gm	$FeSO_4$	0.5 gm
$(NH_4)_2SO_4$	2 gm	H_2O	1000 cc
$CaCl_2$	0.5 gm		

When this medium is inoculated with a yeast that can live in the absence of vitamins or amino acids, practically all the nutrition obtained by the flies is from the yeast. If one uses a yeast like Hansenula anomala NRRL 365 with the above minimal medium at a temperature of 24° C, one has a set of conditions that can be reproduced. With the cornmeal-molasses medium there are probably as many variations possible as there are research workers. In the study of penetrance and expressivity it is of utmost importance to have nutrition as well as temperature under control.

Rosin, S. The position of the wings of killed drosophilae. In flies that have been killed by overetherizing the wings are maintained in a vertical position, so that some bristles cannot be easily seen. In order to study bristle pattern in fixed material,

70%-80% alcohol heated to 70°-80° C is poured over the well-etherized (but not overetherized) flies. By this fixing method we get a more or less normal position of wings.

Stone, P. C. and Zimmering, S. An effective mite control. The Drosophila lab at Missouri had for many years been heavily infested with mites. Complete control has been achieved by use of a new organic mitecide, Aramite-15-W, so that for the past three months no mites whatever can be found. Adult flies were transferred to a fresh food vial together with about 150 mg (the amount that can be held on a penny) of the full-strength Aramite (15% active ingredient), and shaken so that they were well covered with the powder. Cotton plugs were also dusted with Aramite. As a routine, this process was carried out for two generations. Used in this way, Aramite will kill the hypopus as well as other stages of mites, but does not seem to harm the adult drosophilae or affect their fertility. It is important that there be no free water on the walls of the vials, as Aramite will then make a paste with the water, which kills flies. This procedure was carried out in a separate room, the empty lab being, in the meantime, fumigated with a commercial mixture of 3 parts ethylene dichloride to 1 part carbon tetrachloride, about 15 pounds per 1000 cubic feet being used. Aramite 15-W is obtainable from the U. S. Rubber Co., Naugatuck Chemical Division, Naugatuck, Connecticut.

Wallace, Bruce Estimating the size of experimental Drosophila populations. In a study of either the ecology or the genetics of a population, one of the important factors is population size. Determining the number of adults in a Drosophila population by etherization and counting is a laborious task (the number may exceed 10,000), which disrupts, with possible selective effects, the continuity of a population. The result obtained is hardly more than an estimate, because several hundreds of the flies remain uncounted in the cage and moribund flies are includes in the final figure. Any technique that gives a rapid estimate of the number of adults would be a useful one.

An attempt at estimating the number of flies by sampling "fly specks" has been made with some success. The experiment completed dealt with the relation between a known number of adult flies in a population and the number of specks obtained on a sampler exposed to the population for certain periods of time. The cage used was one of Lucite and screen, 18 inches long by 5 1/2 inches wide by 4 1/2 inches high. The sampler was a glazed porcelain cylindrical electrical insulator 3/4 inch long and 5/8 inche in diameter. It was mounted on a glass rod 7 inches long, which was inserted into a rubber stopper. Samples of specks were taken by projecting the sampler through a hole in the small end of the cage and plugging this hole with the stopper on which the sampler was mounted. The sampler, consequently, was suspended equidistant from the top, bottom, and sides of the cage, 7 inches from one end. The number of specks obtained was determined under a low-power binocular microscope merely by counting and simultaneously touching each speck with the point of a pen. Specks, even when overlapping, were easily distinguishable against the white porcelain background.

The results of the experiment can be tabulated as follows: