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: