

be negligible. Thus, the effect produced must be ascribed to the action of alpha-particles emitted by the radioactive precipitate in the tissues of flies breathing emanation of radium.

Gersheñson, S. Possible role of the When bobbed-deficiency genetically-inert region of the X- (sc⁴ - sc⁸) males are chromosome in equational divisions. crossed with yy females, patroclinous females are found in the offspring with a much higher frequency than usual. It seems, therefore, probable that the genetically-inert region of the X plays a role not only in the conjugation of chromosomes during synapsis, but in the equational divisions as well. In two cases among seven, several patroclinous females were found in the offspring of one bb-def. male. Such a coincidence could hardly have been accidental and probably means that equational non-disjunction of the X's took place several cell-generations before maturation.

Technical Notes

Beadle, G. W. Collection of eggs. For the collection of eggs for measures of egg or larval-pupal mortality, small paper spoons containing food have commonly been used. They have the disadvantages of giving a food mass of unequal thickness and usually with a rounded surface. Detection of all the eggs is often difficult. Small nickel boxes made of sheet material about 0.3mm. thick and of the dimensions 15 x 40 x 4mm. with a strip 45 x 10mm. soldered to the bottom so as to project about 30 mm. have been found to be very useful for egg counts and for collecting larvae of known ages. Standard cornmeal agar (containing animal charcoal, if desired, to increase the contrast) is pipetted into these boxes, filling them level full. They can be used in 20 x 100 mm. vials very conveniently. Examinations under a binocular can be made very rapidly. Experiments with different media with and without yeast indicate that yeast is a very important factor in stimulating rapid egg-laying. Standard food "painted" with a rather heavy suspension of yeast gives very satisfactory results. If it is necessary to have the eggs develop into adults, it is easy to slide the food mass out of the box on a cardboard strip 9 x 70 mm. It can then be transferred with eggs or larvae to a standard culture bottle containing food. With care, no eggs or larvae need be lost in the transfer.

Christie, A. L. M. Culture conditions for *D. subobscura*. *D. subobscura* is being worked with in this laboratory and at first considerable difficulties were experienced with the culture conditions. The flies were reared in a 20-22 C incubator and on the usual *D. melanogaster* food medium. Of 200 single pair matings set up, 92 were sterile. The fertile matings gave on an average about 166 flies during a counting period of 19 days. The development takes at this temperature between 19 and 21 days.

It was then found that rearing the flies in a 15 C incubator gave better results. Of 60 single pair matings set up, only 2 were sterile. The average number of flies per fertile bottle was 168 and the time for emergence, 28 days. The addition of 0.05% of Nipagin to the food was found successful in preventing the molds at the low temperature. Before being set up in the culture bottles, the flies have to be held in mating vials; the tests carried out have shown that the best results are obtained after the flies have been held in the vials for 5 days.

Parker, D. R. Method of carrying stocks. The early method of carrying stocks in this institution was to keep them in bottles, merely shaking them from the old one into the new one at each change, with occasional etherization and examination of them. Last year, however, we adopted a new method which seems to be far more efficient. The stocks are now carried in vials, keeping one old vial and mating three new ones at each change. The four are fastened together by means of a rubber band to which is attached the tag label. The flies are etherized by means of the mass method of Altenburg.

The advantages of this system are: (1) The flies are examined at each change, and (2) by making 3 new vials the chances of loss by contamination are greatly reduced. It is possible by this method to practically rid all of the stocks of mites, provided there are no adverse conditions of temperature.

This method takes a bit more time than the older one, but it will perhaps repay the loss with better stocks.

Parker, D. R. Moldex-A as a mold inhibitor. Tests were run recently to find a substance to inhibit the growth of mold. The compounds tried out were Moldex-A, Nipagin-M, and Nipagin-T. These were added to our regular banana food in the ratio of .15 grams of anti-mold substance to 100 c.c. of food. Twenty vials were made of each of the above compounds, as well as twenty vials of plain food.

One half of the vials were inoculated heavily with mold, and the other half left uninoculated. One pair of flies was placed in each vial. Moldex-A was the most efficient in the prevention of mold. However, in the uninoculated series, the Moldex vials gave a slightly lower yield of flies than did the plain food. Egg counts were then run to see the possible effect that Moldex might have on hatchability. Out of approximately 3000 eggs, 98.7% reached the adult stage. This is about 7% higher than the usual hatch on plain food.

Not only is Moldex more efficient than Nipagin-T and Nipagin-M, but it has also the additional advantage of being much more economical. It may be obtained from the Glyco Products Co., 949 Broadway, New York, N. Y.

Schweitzer, Morton D. Collecting eggs. During the past year various techniques of collecting eggs have been tried. The following method has regularly yielded 100-600 eggs per