

Brehme, Katherine S. Effects of the triple-X condition in *D. melanogaster*.

In a study of the giant larva, using the  $gt\ bll/gt\ wa$  stock, a high pupal and first instar larval mortality was observed, as well as a high frequen-

cy of zygotes whose pupation was retarded, as expected for giant, but which did not form large (giant) pupa cases. In order to separate the effects of the triple-X condition from those of the giant, a study of larvae and pupae of  $y\ w/+$  stock has been made. Counts based upon 350 experimental and 1000 control larvae show about 10% larval mortality, 17% pupal mortality in the attached-X stock, in per cent of total zygotes; Florida wild type controls show about 8% mortality in the larval stage, 1% in the pupal. In the  $y\ w/+$  stock, 2% emerged as superfemales. Of the dead larvae, one-fourth died in the late third instar and were identified as triple-X by the color of the Malpighian tubes and mouth armature; the remaining dead larvae were all in the first instar and practically all were males and XXY females. In this stock, therefore, the lethal effect of the triple-X condition is confined almost entirely to the pupal and prepupal stages. In the  $gt\ bll/gt\ wa$  stock, a larval mortality of 14% (almost all in the first instar) and pupal mortality of 16% were observed. Apparently the triple-X lethality is affected by the genetic environment, a larger proportion dying in the early larval period in the giant stock.

In the  $y\ w/+$  stock, it was also observed that triple-X larvae do not form puparia until about 24 hours later than the mean pupation time of the males and XXY females; some XXX larvae do not form puparia until 7 days after oviposition at 25° C. Although no measurements were made, larval growth does not seem to occur during the additional days of larval life.

Barigozzi, Claudio. Study of salivary chromosomes through the ash analysis.

Spodograms of *D. melanogaster* salivary glands were prepared in order to determine the presence of inorganic materials in the ash. After burning

at 450°-500° C the residue was easily detected in euchromatic regions, but no ash was found in the chromocentral region. This indicates that the euchromatin is rich in inorganic matter while the heterochromatin is either poor in it or that such materials are entirely eliminated at temperatures of 450°-500° Centigrade.

Bedichek, Sarah. A spontaneous reverse mutation of yellow<sup>2</sup>.

A reverse mutation of  $y^2$  occurred spontaneously in a homozygous  $y^2\ v\ f$  triploid stock. A single diploid female of the consti-

tution  $\neq\ v\ f/y^2\ v\ f$  was found; contamination is thus excluded.