

| Table 2. Number of offspring produced. Mating: $\frac{3 \text{ ♀}}{+} \text{Cy Amy}^1 \times \frac{3 \text{ ♂}}{+} \text{Cy Amy}^1$ | | | | | | | | | |
|---|-------|---------|--------|-------|-------------|-------|---------|--------|-------|
| Origin of populations (T x T) | | | | | | | | | |
| Mating type | | No. of | No. of | Av. | Mating type | | No. of | No. of | Av. |
| ♀ | ♂ | crosses | flies | | ♀ | ♂ | crosses | flies | |
| 1,3/1 | 1/1 | 62 | 5442 | 87.77 | 1/1 | 1/1 | 129 | 9293 | 72.03 |
| 1,3/1 | 1,3/1 | 145 | 12031 | 82.97 | 1/1 | 1,3/1 | 54 | 4230 | 78.33 |
| Total | | 207 | 17473 | 84.41 | Total | | 183 | 13523 | 73.89 |
| Origin of populations (W x W) | | | | | | | | | |
| 1,3/1 | 1/1 | 93 | 7411 | 79.68 | 1/1 | 1/1 | 115 | 7356 | 63.97 |
| 1,3/1 | 1,3/1 | 143 | 11545 | 80.73 | 1/1 | 1,3/1 | 104 | 7232 | 69.53 |
| Total | | 236 | 18956 | 80.32 | Total | | 219 | 14588 | 66.61 |
| Origin of populations (T x W) | | | | | | | | | |
| 1,3/1 | 1/1 | 135 | 11108 | 82.28 | 1/1 | 1/1 | 110 | 8145 | 74.04 |
| 1,3/1 | 1,3/1 | 133 | 11995 | 90.18 | 1/1 | 1,3/1 | 106 | 7905 | 74.58 |
| Total | | 268 | 23103 | 86.20 | Total | | 216 | 16050 | 74.30 |

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parative mutability of wild-type alleles
at the specific loci in *D. melanogaster*.

γ -irradiation-induced mutability of the
loci y^+ , w^+ , b^+ , cn^+ and vg^+ in post-
meiotic germ cells of the males from a
mass-bred wild-type stock, "D-18", was
studied. The methodical details of the
detection, classification and analysis of

the mutants have been described previously (DIS 44). Altogether, 1161 males were irradiated
and 66,614 F₁ females and males were examined among which 121 mutants were found.

The results are shown in table 1. The overall mutation frequencies include cases of
mutant F₁ females and males which were inviable, sterile or lethal. Point mutation fre-
quencies include cases of mutants which were kept in stocks. The first and the second broods
represent all sperm and spermatids, respectively.

Table 1

Mutation frequencies in loci ($\times 10^{-7}/r$)

| Brood | Mutations | y | w | b | cn | vg |
|--------|-----------|-----|------|-----|------|------|
| First | Overall | .59 | 1.49 | .34 | .88 | 1.52 |
| | Point | .29 | .59 | .04 | .14 | .34 |
| Second | Overall | - | 4.09 | .63 | 1.59 | 2.71 |
| | Point | - | 1.88 | .15 | .15 | .15 |

In the table 2, the average point and overall mutation frequencies of those loci for
all post-meiotic stages germ cells of the males from two studied wild-type stocks "D-32" and
"D-18" are compared.

Table 2

Mutation frequencies in loci ($\times 10^{-7}/r$)

| Stocks | Mutations | y | w | b | cn | vg |
|--------|-----------|-----|------|-----|------|------|
| D-32 | Overall | .34 | 1.81 | .19 | 1.00 | 2.52 |
| | Point | .14 | .21 | .07 | .37 | .37 |
| D-18 | Overall | .45 | 2.12 | .41 | 1.05 | 1.80 |
| | Point | .25 | .91 | .07 | .15 | .30 |