Our results show that there was intrapopulational genetic variation for hybridization in both species. This has been already noticed in some reports (Eoff 1975, 1977; Carracedo & Casares 1985). However, since these species appear to be almost completely isolated in nature, natural selection for sexual isolation seems to be improbable. Further work is necessary to understand the origin of sexual isolation between these sibling species.

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Viability and larva-to-adult developmental time are two important components of fitness in Drosophila and they can be related to phenomena such as larval facilitation (Lewontin 1955; Beardmore 1963; Bos et al. 1977; Bos 1979), as well as to concepts of microniches (Tosić & Ayala 1981) and microenvironments (Barker 1971).

Viability and developmental time of three strains of Drosophila melanogaster in an uncrowded situation, but with different seeding sites in vials, were studied.

The strains employed here were: a wild strain and two mutant strains for eye colour; cardinal (III, 75.7) and sepia (III, 26.0). A total of 72 newly hatched larvae ±2 hr old were seeded into 10 x 2.5 cm vials with 10 ml of boiled yeast medium according to the following ways: (1) All larvae seeded at the same time

![Figure 1](image-url)
in the centre of food by means of an incision practised with a lancet. (2) All larvae seeded at the same
time in a side of the medium just beside the vial wall with incision on food. (3) Larvae seeded in 3 groups
of 24 larvae each, separated as far as possible with incision on food. (4) All larvae seeded on the centre
of food, without incision. In this case larvae were placed on a piece of paper (0.5 x 0.5 cm) which was put
on the surface of food.

Monocultures and tricultures (24 larvae for each strain) were carried out. A total of 8 replicates
for monocultures and 10 replicates for tricultures were made. Cultures were incubated at 25±1°C and at
60±5% relative humidity. Data were analyzed by ANOVA and Student-Newman-Keuls test.

Figure 1a shows viabilities (V) and mean developmental times (MDT) for the three strains in mono-
cultures. Viability shows only significant differences among the different seeding sites in the cardinal
strain which has a higher viability when seeding in site 1. As regards MDT, cardinal and sepia strains show
differences, cardinal being faster in 1 and 2 situations and sepia in 1 and 4.

Figure 1b shows viabilities (V) and mean developmental times (MDT) in tricultures. Though wild
strain shows a slight decrease in viability when seeded in the 4th way, no significant differences among vi-
abilities appear. As regards MDT, statistical tests show that wild strain is faster in situation 1; the MDT of
the cardinal strain remain unchanged in all situations, and sepia is faster in situation 1 and slower in the
4th.

In monocultures, wild strain seems to be unaffected by the seeding sites. Cardinal strain, on the
other hand, is slower in situations 3 and 4, it showing that, perhaps it is more sensitive than wild strain to
gregarism and to help which may represent the incision of the medium. These ideas are supported by the
highest viability exhibited by cardinal in situation 1. It seems that sepia has higher sensitivity to gregarism
than wild strain though not face to cardinal strain. The incision does not change its response.

In tricultures, viabilities do not show differences among the different seeding sites, while mean
developmental times show a phenomenon of facilitation among the strains, mean developmental times being
lower in tricultures than in monocultures. The first seeding method gives rise to the fastest developmental
rate in the three strains. This result supports some kind of mutual facilitation. This facilitation is present
in spite of the existence of the different competitive abilities of genotypes being reflected as differences
among the MDT. In this way, the concept of larval facilitation is extended. Moreover, this effect seems
to be important for the understanding of genetic polymorphisms. Since in our uncrowded cultures facilita-
tion is put into evidence, it may be thought that under more restrictive conditions its role may be determi-
nant. However, when food and space are limited, facilitation might be hidden under other factors more
relevant.