Godoy, R. and E. del Solar. University of Chile, Santiago, Chile. Choice of oviposition sites in D. melanogaster over 24, 48 and 72 hours.

Three sets of 40 groups of 25 four day old inseminated females were placed in population cages containing 25 numbered equally distanced vials. After 24, 48 and 72 hours the number of eggs per vial, and the position of the vial within the cage, were registered.

Table 1 summarizes the results of the three types of statistical analysis used to measure aggregation, and the mean number of eggs per cage. These show that aggregation decreases while egg numbers increase with time.

<table>
<thead>
<tr>
<th>Time in hours</th>
<th>24</th>
<th>48</th>
<th>72</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of eggs in the preferred vial</td>
<td>0.30 ± 0.03</td>
<td>0.28 ± 0.01</td>
<td>0.26 ± 0.04</td>
</tr>
<tr>
<td>Mean number of vials occupied</td>
<td>16.1 ± 1.04</td>
<td>16.3 ± 0.80</td>
<td>18.8 ± 0.25</td>
</tr>
<tr>
<td>Aggregation index 100 √ $\frac{S - X}{X}$</td>
<td>166.48 ± 12.5</td>
<td>165.91 ± 16.2</td>
<td>144.91 ± 20.8</td>
</tr>
<tr>
<td>Mean number of eggs per cage</td>
<td>147.5 ± 17.6</td>
<td>156.8 ± 20.9</td>
<td>191.2 ± 26.0</td>
</tr>
</tbody>
</table>

In Table 2 the number of vials divided into groups according to the number of eggs collected during 24, 48 and 72 hours, are shown. It may be seen that increase in time allowed for oviposition does not modify the frequency of vials containing a large number of eggs. This result suggests that there is no competition, and that the highest number of eggs is deposited in vials containing between one and ten eggs.

<table>
<thead>
<tr>
<th>24 hours</th>
<th>48 hours</th>
<th>72 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of vials</td>
<td>Number of vials</td>
<td>Number of vials</td>
</tr>
<tr>
<td>0</td>
<td>357</td>
<td>35.7</td>
</tr>
<tr>
<td>1 - 10</td>
<td>476</td>
<td>47.6</td>
</tr>
<tr>
<td>11 - 20</td>
<td>100</td>
<td>10.0</td>
</tr>
<tr>
<td>21 - 30</td>
<td>41</td>
<td>4.1</td>
</tr>
<tr>
<td>31 - 40</td>
<td>11</td>
<td>1.1</td>
</tr>
<tr>
<td>41 - 50</td>
<td>3</td>
<td>0.3</td>
</tr>
<tr>
<td>51 - 60</td>
<td>3</td>
<td>0.3</td>
</tr>
<tr>
<td>61 - 70</td>
<td>2</td>
<td>0.2</td>
</tr>
<tr>
<td>71 - 80</td>
<td>4</td>
<td>0.4</td>
</tr>
<tr>
<td>81 - 90</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>91 - 100</td>
<td>1</td>
<td>0.1</td>
</tr>
<tr>
<td>101</td>
<td>8</td>
<td>0.8</td>
</tr>
</tbody>
</table>

A Chi-square test performed in order to investigate whether the females use any of the 25 vials for oviposition, indicates no such discrimination in relation to the position of the vial within the cage. ($\chi^2_{24} = 17.169$, $P = .85 - .80$, $N = 120$).

A similar test performed to see whether one of the 25 vials is preferred shows no significance either. ($\chi^2_{24} = 21.205$, $P = .70 - .65$, $N = 120$).

Seecof, R.L., City of Hope Medical Center, Duarte, California. Phosphate-buffered saline for Drosophila.

The following saline has proved satisfactory for Drosophila embryonic cells cultured in vitro. It was developed by testing various salt combinations for their ability to maintain pulsations of visceral myocytes, up to 10 hours for this formulation. The integrity and pulsatility of larval organs is maintained very satisfactorily as well.

$\text{Na}_2\text{HPO}_4$, 85; $\text{KH}_2\text{PO}_4$, 50; $\text{NaCl}$, 620; $\text{KCl}$, 200; $\text{MgCl}_2 \cdot 6\text{H}_2\text{O}$, 130; $\text{CaCl}_2$, 25; distilled water 100 ml. Weights given as milligrams, final pH 6.75 to 6.80 without further adjustment. Keep sterile or frozen.

Supported by NIH Grant No. AI05038 and NS09330.