

Life Table Lalat Buah (*Drosophila melanogaster*) yang Didedahkan pada Konsentrasi Subletal Sipermetrin

Title	Life Table Lalat Buah (<i>Drosophila melanogaster</i>) yang Didedahkan pada Konsentrasi Subletal Sipermetrin
Author Order	2 of 3
Accreditation	4
Abstract	<p><i>Drosophila melanogaster</i> or commonly known as the fruit fly, is a type of insect found in rotting fruits or vegetables and plants material around the world with a wide distribution. This study aims at determining the LC50 value of eggs, larvae, pupae and the reproductive potential of adult fruit flies (<i>Drosophila melanogaster</i>) exposed to cypermethrin. The method used was an experiment using a completely randomized design (CRD). The data of mortality from toxicity tests were analyzed by ANOVA and Probit test using the SPSS application, while data on reproductive potential parameters were analyzed using the life table method using Ms. Excel. The results of this study showed that the LC50 value of cypermethrin was different at each development stage. The LC50 value from the lowest to the highest successively starts at the egg development stage, which was 1654,824 ppm, then at the egg stage was 3067,192 ppm, the imago stage was 3155,848 ppm and the pupae stage was 3755,014 ppm. The reproductive potential and population rate of <i>D. melanogaster</i> decreased significantly with increasing concentration, lower than the control. The best concentration that was able to reduce the value of the net reproduction rate (R_0) and the ability of the population to multiply (λ) was 266.6 ppm with an average value of 0.22 and 0.86, respectively. Further, the best concentration in reducing the average life period (T) and the population reproductive potential (r_m) were a concentration of 250.0 ppm with an average value of each parameter of 9.64 and -0.03.</p>
Publisher Name	Fakultas Biologi Universitas Jenderal Soedirman
Publish Date	2022-05-10
Publish Year	2022
Doi	DOI: 10.20884/1.bioe.2021.3.3.4434
Citation	
Source	BioEksakta : Jurnal Ilmiah Biologi Unsoed
Source Issue	Vol 3 No 3 (2021): BioEksakta
Source Page	150-155
Url	http://jos.unsoed.ac.id/index.php/bioe/article/view/4434/2929
Author	Dr Drs BAMBANG HERU BUDIANTO, M.S