

عنوان مقاله:

Estimation of life expectancy and measurement of immature stages of *Lucilia sericata* fed on three kinds of diets

محل انتشار:

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خلاصه مقاله:

Background and Objectives: Finding the best diet is very important to rear *Lucilia sericata* larvae for therapeutic purposes and prepare standard curves in forensic entomology. The aim of this study was to find the best diet for larvae in maggot therapy. Furthermore, this study was conducted to obtain a vertical life table and measure the length and width of immature stages of *L. sericata* for forensic entomology. **Materials and Methods:** Larvae of *L. sericata* (Karaj strain) were used to evaluate diets. The tests were carried out in three replicates of 100 eggs for each diet including chicken liver, blood agar, and fish food at the same time. Independent t-test, ANOVA, and Tukey's post-hoc tests were used to compare the mean length and width of larvae between different groups. A P-value of less than 0.05 was considered significance level. **Results:** In contrast to the first and the second larval instars, there was a significant difference in the mean length and width of the third instar larvae ($P < 0.001$). At the third instar larval stage, those larvae that had been fed on chicken liver were significantly larger than the others. There were also no significant differences between life expectancy, overall survivorship rate, and force of mortality of larval groups fed on three different diets. **Conclusions:** Chicken liver is an advisable diet for nurturing larvae and plotting standard curves in forensic entomology. For rearing the first and the second larval instars in sterile conditions, blood agar and fish food can serve as suitable diets.

کلمات کلیدی:

Fly, *Lucilia sericata*, Life table, Larval diet, Forensic entomology, Maggot therapy

