

## ABSTRACT

### THE EFFECT OF TYPE OF FEED MEDIA ON THE GROWTH OF LARVAE OF *Hermentia Illucens* IN ORGANIC WASTE REDUCTION PROCESS

By

**Muhammad Tri Jatmiko**

Increasing the effectiveness of waste management and processing is by utilizing waste as a source of protein for fish feed through the bioconversion process. One of the insects that are usually used as a bioconversion process is *Hermentia Illucens* or better known as BSF (Black Soldier Flies) or Black Soldier Flies. This research was conducted to see the bioconversion process carried out by BSF larvae and to see the morphology of the body length and body weight of BSF larvae. This research was conducted at the Integrated Waste Management Site (TPST) at the University of Lampung. The variations of waste used are market waste, tofu dregs, and a mixture of market waste and tofu dregs (1:1). The most optimal results for measuring the body length of *Hermentia Illucens* larvae were *Hermentia Illucens* larvae of the tofu dregs feed, with an average of 2.17 cm. The most optimal results of measuring the body weight of *Hermentia Illucens* larvae were *Hermentia Illucens* larvae of market waste feed types with an average weight of 0.336 g. The best proximate test results from *Hermentia Illucens* larvae were tofu dregs feed media larvae with a protein content of 41.27% and 27.42% fat. It can be concluded that *Hermentia Illucens* larvae from tofu dregs feed media were the best because they contained high levels of protein and not too high-fat content.

Keywords: *Hermentia Illucens* larvae, tofu dregs, market waste.

## ABSTRAK

### PENGARUH JENIS MEDIA PAKAN TERHADAP PERTUMBUHAN LARVA *Hermentia Illucens* DALAM PROSES REDUKSI SAMPAH ORGANIK

Oleh

**Muhammad Tri Jatmiko**

Peningkatan efektivitas pengelolaan dan pengolahan sampah adalah dengan memanfaatkan sampah menjadi sumber protein bahan pakan ikan melalui proses biokonversi. Salah satu serangga yang biasanya digunakan sebagai proses biokonversi adalah *Hermentia Illucens* atau lebih dikenal dengan BSF (Black Soldier Flies) atau Lalat Tentara Hitam. Penelitian ini dilakukan untuk melihat proses biokonversi yang dilakukan oleh larva *Hermentia Illucens* dan melihat morfologi panjang dan berat tubuh larva *Hermentia Illucens*. Penelitian ini dilakukan di Tempat Pengolahan Sampah Terpadu (TPST) Universitas Lampung. Variasi sampah yang digunakan yaitu sampah pasar, ampas tahu, dan campuran sampah pasar dan ampas tahu (1:1). Hasil pengukuran panjang tubuh larva *Hermentia Illucens* yang paling optimal yaitu pada larva *Hermentia Illucens* jenis pakan ampas tahu yaitu dengan rata-rata 2.17 cm. Hasil pengukuran berat tubuh larva *Hermentia Illucens* yang paling optimal yaitu larva *Hermentia Illucens* jenis pakan sampah pasar dengan berat rata-rata 0,336 g. Hasil uji proksimat dari larva *Hermentia Illucens* yang paling baik yaitu larva media pakan ampas tahu dengan kandungan protein sebesar 41,27% dan lemak sebesar 27,42%, dapat disimpulkan larva *Hermentia Illucens* dari media pakan ampas tahu yang paling baik karena mengandung kadar protein yang tinggi dan kadar lemak yang tidak terlalu tinggi.

Kata kunci : *Hermentia Illucens* BSF, ampas tahu, sampah pasar.